

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES
1 81

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 10/31/2014		2. CONTRACT NO. (If any) EP-C-12-054		6. SHIP TO: a. NAME OF CONSIGNEE Multiple Destinations	
3. ORDER NO. 0006		4. REQUISITION/REFERENCE NO. See Schedule			
5. ISSUING OFFICE (Address correspondence to) (FOR U.S. MAIL ONLY) US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268				b. STREET ADDRESS	
				c. CITY	e. ZIP CODE
7. TO: DEBORAH ELLISON				f. SHIP VIA	
a. NAME OF CONTRACTOR R T I International				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS PO BOX 12194 (b)(4)				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY RESEARCH TRIANGLE PARK		e. STATE NC	f. ZIP CODE 277092194		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE CPOD	

11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB				12. F.O.B. POINT Destination	
13. PLACE OF a. INSPECTION Destination		b. ACCEPTANCE Destination		14. GOVERNMENT B/L NO.	
				15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
16. DISCOUNT TERMS					

17. SCHEDULE (See reverse for Rejections)

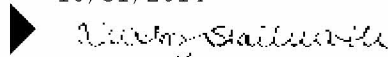
ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: (b)(4) Drinking Water Mapping Application for Protecting Source Waters (DWMAPS) Task Order 0006 TOPO: Sherri Comerford Max Expire Date: 03/27/2018 Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$337,854.00
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive						\$337,854.00
c. CITY Durham				d. STATE NC	e. ZIP CODE 27711		17(i) GRAND TOTAL

22. UNITED STATES OF

AMERICA BY (Signature)

10/31/2014



ELECTRONIC SIGNATURE

23. NAME (Typed)

Courtney Stallworth

TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

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DATE OF ORDER 10/31/2014	CONTRACT NO. EP-C-12-054	ORDER NO. 0006
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>Admin Office: CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268 Period of Performance: 10/29/2014 to 09/27/2015</p> <p>Provide services in accordance with attached Performance Work Statement entitled, "Drinking Water Mapping Application for Protecting Source Waters (DWMAPS)." This task order award is a result of RFP PR-OW-14-00463</p> <p>Level of Effort: 2,997</p> <p>The government will make provisional fixed fee payments on the basis of percentage of work completed. For CPFF-term-type task orders, percentage of work completed is the ratio of direct labor hours performed to the direct labor hours ordered. Award Type: Cost-plus-fixed-fee Total Estimated Cost: (b)(4) Fixed Fee: (b)(4) Term Form Requisition No: PR-OW-14-00370, PR-OW-14-00463</p> <p>Delivery Location Code: OW/OGWDW/DWPD Drinking Water Protection Division USEPA Headquarters William Jefferson Clinton Building 1200 Pennsylvania Avenue, N. W. Mail Code: 4606M Washington DC 20460 Amount: \$337,854.00 Accounting Info: 14-15-B-40ES-201B53X26-2505-LSMMGBBQ-1 440DWE054-001 BFY: 14 EFY: 15 Fund: B Budget Org: 40ES Program (PRC): 201B53X26 Budget (BOC): 2505 Job #: LSMMGBBQ DCN - Line ID: 1440DWE054-001 Funding Flag: Partial Continued ...</p>				337,854.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$337,854.00

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
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DATE OF ORDER 10/31/2014	CONTRACT NO. EP-C-12-054	ORDER NO. 0006
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0002	<p>Funded: \$273,000.00 Accounting Info: 14-15-B-40EJ-201B53X26-2505-LSMMGBBQ-1 440DWE038-002 BFY: 14 EFY: 15 Fund: B Budget Org: 40EJ Program (PRC): 201B53X26 Budget (BOC): 2505 Job #: LSMMGBBQ DCN - Line ID: 1440DWE038-002 Funding Flag: Partial Funded: \$25,000.00 Accounting Info: 14-15-B-40ES-201B53X26-2505-LSMMGBBQ-1 440DWE038-003 BFY: 14 EFY: 15 Fund: B Budget Org: 40ES Program (PRC): 201B53X26 Budget (BOC): 2505 Job #: LSMMGBBQ DCN - Line ID: 1440DWE038-003 Funding Flag: Partial Funded: \$32,175.88</p> <p>Option Period 1 Provide services in accordance with attached Performance Work Statement entitled, "Drinking Water Mapping Application for Protecting Source Waters (DWMAPS)." This task order award is a result of RFP PR-OW-14-00463</p> <p>Level of Effort: 685</p> <p>The government will make provisional fixed fee payments on the basis of percentage of work completed. For CPFF-term-type task orders, percentage of work completed is the ratio of direct labor hours performed to the direct labor hours ordered. (Option Line Item)</p> <p>Delivery Location Code: OW-OWOW-AWPD-NPSB AWPD-NPSB US EPA-OW-OWOW-AWPD-NPSB 1200 PENNSYLVANIA AVE., NW MC-4503-T WASHINGTON DC 20460 Amount: \$78,662.00</p> <p>Continued ...</p>					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

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DATE OF ORDER 10/31/2014	CONTRACT NO. EP-C-12-054	ORDER NO. 0006
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0003	<p>Option Period 2</p> <p>Provide services in accordance with attached Performance Work Statement entitled, "Drinking Water Mapping Application for Protecting Source Waters (DWMAPS)." This task order award is a result of RFP PR-OW-14-00463</p> <p>Level of Effort: 685</p> <p>The government will make provisional fixed fee payments on the basis of percentage of work completed. For CPFF-term-type task orders, percentage of work completed is the ratio of direct labor hours performed to the direct labor hours ordered. (Option Line Item)</p>					
0004	<p>Option Period 3</p> <p>Provide services in accordance with attached Performance Work Statement entitled, "Drinking Water Mapping Application for Protecting Source Waters (DWMAPS)." This task order award is a result of RFP PR-OW-14-00463</p> <p>Level of Effort: 377</p> <p>The government will make provisional fixed fee payments on the basis of percentage of work completed. For CPFF-term-type task orders, percentage of work completed is the ratio of direct labor hours performed to the direct labor hours ordered. (Option Line Item)</p>					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

PERFORMANCE WORK STATEMENT
TSAWP Multiple-Award Contracts
TASK ORDER
EP-12-C-054 0006

A. Title: Drinking Water Mapping Application for Protecting Source Waters (DWMAPS)

B. Period of Performance: One year after date of issuance

B. Task Order COR:

Sherri Comerford
Environmental Protection Specialist
Office of Ground Water and Drinking Water
Prevention Branch
202-564-4639
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Alternate Task Order COR:

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I. Background

EPA, in partnership with AWWA and ASDWA, is launching a national call to states, drinking water utilities, and local communities to redouble their efforts to identify susceptible drinking water systems, revisit their source water assessments, and take steps to ensure that adequate preventative and response measures are in place.

In the June 6 Executive Order, “Report on Chemical Safety,” the agency commits to engage with and encourage State Drinking Water Administrators and drinking water utilities to revisit and update source water assessments and determine whether adequate preparedness and preventive measures are in place for systems susceptible to contamination from chemical spills or other priority concerns.

One activity key to carrying out this commitment is enhancing and developing a public version of the Drinking Water Mapping Application for Protecting Source Waters (DWMAPS), formerly known as the Drinking Water GeoPlatform Application. This effort, in conjunction with a national dialogue to identify new opportunities in source water protection, will increase public health protection and public confidence in the drinking water supply, by providing states and utilities with

the tools and support they need to identify and most effectively manage the greatest risks to drinking waters sources - both to prevent contaminants from entering a drinking water source and to adequately respond should a contamination event occur.

Purpose:

The purpose of this work assignment is to build on the existing DWMAPS to develop and maintain a comprehensive, nationwide mapping tool, with associated web services, that EPA and state agencies can use to protect drinking water sources from releases of potential sources of contamination. EPA and state agencies would use this tool to: (1) identify locations where potential sources of contamination pose risk to drinking water sources; (2) promote compliance with spill prevention and planning requirements in high-risk locations; (3) ensure that emergency response resources for accidental releases are readily available in high-risk locations; (4) provide functions that support updating of source water protection plans; and (5) promote integration of SDWA activities with other environmental programs at the EPA, state, and local levels.

This project continues work initiated under Task Order 3, Drinking Water GeoPlatform Application. It also develops a secure version of DWMAPS accessible to state and utilities via the Central Data Exchange (CDX); incorporates new functions and data layers to all three versions of DWMAPS; develops a source water protection reporting tool; supports training sessions for critical DWMAPS users; and supports the development of user guides for the three versions of DWMAPS.

II. Tasks

Task 1: Core Support and Maintenance

- 1.1 Prior to the beginning of work on this task, the Task Order Contract Officer's Representative (TOCOR) shall schedule a kick off meeting with the contractor to discuss the tasks within this task order, the goals of the task order, any questions or concerns regarding the existing QAPP, and a review of the schedule of milestones and expectations.
- 1.2 At the kick off meeting at the beginning of the tasks, the agenda shall include an overview of the existing QAPP, and address any concerns from EPA's QAO or from the contractor. Issues raised will be acknowledged by EPA's QAO, and the contractor will be allowed to incur billable costs to address the issues or EPA will dismiss the concern. If the issue needs to be addressed, an addendum to the existing QAPP will be written.
- 1.3 EPA has determined that an existing QAPP will be used for the performance of this task order. See Section III for additional information.
- 1.4 The contractor shall develop, update and/or revise, as directed via written technical direction by the TOCOR, the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies or other needs, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA

Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR. Copies of the security plan shall be provided to the TOCOR, OGWDW Security Officer and the WATERS team leader as necessary. Upon direction from the TOCOR, the contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed “security” for DWMAPS’ use of EPA’s Central Data Exchange (CDX).

- 1.5 The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the DWMAPS Web site during normal business hours. Any user or the EPA TOCOR may notify the contractor that either Web site is not available.
- 1.6 The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable. Updates to the DWMAPS are needed because changes occur regularly in the ArcGIS application software, GIS platforms, server locations, Oracle database facility, and the WATERS version control structure.
- 1.7 The contractor shall be responsible for managing and maintaining necessary operations for DWMAPS.
- 1.8 The contractor shall monitor the use of DWMAPS and identify all issues with the software. The contractor shall report to EPA all issues with DWMAPS and assist EPA in prioritizing their resolution, as well as operate, maintain and provide user support as directed.
- 1.9 The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.
- 1.10 The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.
- 1.11 The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort. No information to be included at the site shall be considered sensitive information or data.
- 1.12 The contractor respond to help requests as directed by the TOCOR. EPA will set up an email address for DWMAPS help requests and will send to the contractor only those items for which the EPA DWMAPS team needs support.

Task 2: Basic Data Use

2.1 The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment. Maintaining the current datasets shall allow the DWMAPS application to be accessed for continuing projects and analyses.

2.2 The contractor shall update all major GIS layers that are included in Attachment A: Data Updates Required to Enhance the GIS Capabilities of the DWMAPS. Priority coverages and data for these updates are the SDWIS/Fed drinking water data and the layers based on this data (e.g. Source Protection Areas (SPAs); HUC12 layers used in MyWATERS Mapper, etc.). The version of SDWIS/Fed used for all updates shall be the latest complete quarter or its derivative as determined by EPA. The following datasets and data layers shall be updated.

- 2.2.1 A SDWIS geospatial dataset including all source facilities georeferenced to the most recent NHDPlus¹.
- 2.2.2 Reach code indexing for all SDWIS/Fed source facilities (surface water only).
- 2.2.3 Updating and re-calculating the source protection areas (SPAs) based on the existing and any new source facilities that are not included in the current SPA data layer (3rd Quarter 2010). The contractor shall use the NHDPlus (latest acceptable version) coverages to refine the SPAs as needed
 - 2.2.3.1 Create other source protection areas (SPAs) based on source water assessment delineations provided by states.
- 2.2.4 Updating the drinking water density maps using the HUC12 watersheds based on NHDPlus (latest accepted version), preparing them for use in various formats or applications (e.g. MyWATERS Mapper, downloadable data sets, web services, etc.) and making them available for public distribution as determined by EPA.
- 2.2.5 Update all metadata connected to the data updates in subtasks 2.2.1 through 2.2.4.
- 2.2.6 Other data sets contained in the DWMAPS to be considered for update or refresh as funding allows are the following: (version date in parentheses)
 - 2.2.6.1 NPDES (Summer 2007)
 - 2.2.6.2 CSO (August 2004)
 - 2.2.6.3 CERCLA (July 2007)
 - 2.2.6.4 RCRA (July 2007)
 - 2.2.6.5 UIC ((1990's)
 - 2.2.6.6 UST (HIFLD - HSIP Gold 2007 dataset of gas stations²)

¹ NHDPlus is an integrated suite of application-ready geospatial data sets that incorporate many of the best features of the National Hydrography Dataset (NHD), the National Elevation dataset (NED), and the Watershed Boundary Dataset (WBD). NHDPlus Version 1 (NHDPlusV1) was released in 2006. NHDPlus Version 2 (NHDPlusV2) began its public debut in June 2012.

² HIFLD – Homeland Infrastructure Foundation-Level Database (HIFLD) Working Group is a coalition of federal, state, and local government organizations, and supporting private industry partners who are involved with geospatial issues related to Homeland Defense, Homeland Security, civil support or emergency preparedness and response. The HIFLD website is found at <https://www.hifldwg.org>. HIFLD produces the Homeland Security Infrastructure Program (HSIP) dataset called the HSIP Gold dataset. The HSIP Gold 2012 dataset contains 5 DVDs: DVD1: Infrastructure Data; DVD 2: Infrastructure Data(Cont.), National Flood, Hazard Layer; DVD 3: LandScanTM, LandScan USATM; DVD 4: Navteq®, Road Networks, Points of Interest; DVD 5: Navteq®, Geocoding Locators

- 2.2.6.7 Dry Cleaners (ESRI ArcGIS 9.3 Business Analyst January 2008)
- 2.2.6.8 AFO (HSIP 2007)
- 2.2.6.9 SSA (January 2009)
- 2.2.7 Karst (1984)
- 2.2.7.1 DOD (December 2005)
- 2.2.7.2 Tribal (3rd Quarter 2006)
- 2.2.7.3 Ground Water Regions (1984)
- 2.2.7.4 Principal Aquifers ((October 2003)
- 2.2.7.5 Surficial Geology (1979)
- 2.2.7.6 FEMA Q3 flood plain maps (2003?)
- 2.2.7.7 NOAA Coastal Counties (Date not noted)
- 2.2.7.8 Pipeline and Bridge/Rail Hazardous Transportation Layers
- 2.2.7.9 Other layers as identified by EPA

2.3 The contractor shall *support EPA's efforts to* collect, evaluate and develop new datasets to be used to support drinking water, source water and underground injection program analyses. The contractor shall use its expertise to develop those datasets that are required, used or needed to support analyses under the GeoPlatform, the SDWIS/Fed Data Warehouse (SFDW), SDWIS/Fed Reporting Services (SFRS), Nutrient Reduction Framework, NPDAT, MyWATERS Mapper, Water Data Project, environmental justice projects, and other agency initiatives.

Task 3: DWMAPS Enhancements and Design

Note: for new data layers referenced below, EPA will conduct upfront data discovery and data vetting.

3.1 The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports³] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.

3.2 The contractor shall design and develop new geospatial functions and queries determined by EPA that are directly related to the outlined tasks in 3.1 above. All work shall take advantage of the NHDPlus velocity and flow variables available for the catchments that are elevation-derived sets of polygons to represent contributing areas to stream reaches. These catchment areas should make possible more complex watershed-based analyses that the contractor shall use to recommend cross-program benefits to use within EPA and with other Federal agencies. Examples of the types of geospatial analyses and queries to be investigated are

(ArcGIS 9.3 & ArcGIS 10.0)

³ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

the following:

- 3.2.1 Using the TMDL layer as an active layer with queries [preparation of impaired waters and TMDL data from ATTAINS database potentially needed].
- 3.2.2 Determining results from queries that can be displayed on a nationwide basis by integrating new query building techniques using SPAs and generating queries and reports on the numbers, types, names and locations of contaminant sources.
- 3.2.3 Integrating layers for inundation areas, floodplains and coastal counties for use in emergency response actions using queries [Designing queries for coastal counties or “SLOSH” (sea level rise and flooding purposes) displays, and FEMA flood plain data (Q3 version)].
- 3.2.4 Designing and enhancing reporting functions and printing query results directly from GIS viewers [e.g. printing and sharing of .pdf file of map results; downloading GIS files after query complete and saving project analysis].
- 3.2.5 Using other data layers for drinking water, source water and UIC for designing geospatial analytical functions or GIS representations and queries. These layers to be considered for example are: climate change; aquifer exemption; sole source aquifer; hydraulic fracturing, and geologic sequestration. *For the base year*, contractor shall prioritize DWMAPS interaction with Clean Water Act databases and models that support the business questions in ATTACHMENT B (e.g., ATTAINS, ICIS, and NSD2). The contractor shall coordinate with EPA’s Water Quality Portal, which includes data from EPA STorage and RETrieval Data Warehouse (STORET) as well as USGS National Water Information System (NWIS) and USDA Sustaining the Earth’s Watersheds: Agricultural Research Database (STEWARDS).
- 3.2.6 The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.
- 3.2.7. Create database link between FRS database and SFDW database to enable automatic quarterly updates.

Task 4: Develop Secure Access for States and Utilities

The contractor shall develop secure access to DWMAPS for states and utilities by linking to the Central Data Exchange (CDX). By logging on to DWMAPS through CDX, states and utilities will be able to see their SDWIS Fed location data in DWMAPS (i.e. they will not need to click on the map or enter a latitude/longitude) and have their SDWIS Fed location used automatically by

DWMAAPS upstream potential risk identification functions. Additionally, states and utilities will be able to send a request from DWMAAPS to the Primacy Agency data steward to correct location data in the primacy agency data system (with corrected data sent from the primacy agency to SDWIS Fed during the subsequent quarterly reporting). Also, the Contractor shall provide capabilities to incorporate state specific datasets (e.g. SPAs) – some state specific datasets may be sensitive and therefore require CDX controls so that only authorized users in the state can access the data.

Task 5: Develop DWMAAPS Source Water Protection Report-Generating Tool

Many informational and technical barriers prevent utilities, state drinking water professionals, and other stakeholders from updating Source Water Assessments. The contractor shall develop a DWMAAPS report writer (hereafter, the “Writer”), designed to make it easier to document potential sources of contamination and water quality information that may affect source waters. In addition to synthesizing and translating data from national databases, the Writer will allow users to “write in” information from local records, improving the report’s relevance to communities and practitioners in the field. [See ATTACHMENT C – Sample DWMAAPS Source Water Protection Report]

This Writer will offer templates for writing source water assessment updates specific to the priorities of utilities, states and public users. The Writer will use DWMAAPS metadata to produce charts and tables, and provide users with editing options and text templates to customize each report and supplement data with the author’s description. The Writer will also allow users to extract data into an Excel spreadsheet to import into their own programs. User identity will determine report interface. The Writer interface will have up to three (3) versions, each tailored to the needs of specific user groups. The interface will vary depending on whether users access DWMAAPS via

- 5.1 State CDX log-in
- 5.2 Utility CDX log-in
- 5.3 Public DWMAAPS

State and utility versions are the priorities for the base year. Differences between Writer versions will be most visible in the level of informational detail; technical/non-technical language; and data options. For example, the State Writer will incorporate more regulatory language and include analyses cross-walking Clean Water Act and Safe Drinking Water Act areas of concern.

Task 6: Technical Support

6.1 The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.

6.2 The contractor shall, as required at times, evaluate and provide technical support for specific GIS projects from OGWDW or outside the office, such as recommendations on project objectives, data use and sources, and project initiation. The contractor support for projects to other EPA customers outside OGWDW shall be assigned dependent on the level of effort in the contract and as directed via written technical direction by the TOCOR.

6.3 The contractor shall integrate data for collaborative projects across EPA offices. The

contractor shall investigate and design new queries for the integration of data (e.g. OUST, OSWER, OWM) and other non- EPA agency data (e.g. Forest Service) into geospatial analytical capabilities to be used in the GeoPlatform, NextGen developments, SFDW or in ArcGIS desktop applications. The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows. The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.

6.4 The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.

6.5 The contractor shall provide technical support to users of DWMAPS query function, web services, and source water protection reporting tool.

6.5.1 The contractor shall provide support to users who email EPA with questions about use of DWMAPS, at the direction of the TOCOR. EPA will establish an agency email box for user support and field questions. When EPA needs assistance answering questions, the contractor shall assist the agency in formulating a response.

6.5.2 The contractor shall provide online user guides to document the use of the federal, public and state/CDX versions of DWMAPS, web services, and source water assessment report-generating tool, updating the guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.

Task 7: Support Meetings and Training

7.1 The contractor shall, as directed via written technical direction by the TOCOR, prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing. The contractor shall also prepare briefing materials, information handouts, and presentations as needed for EPA on site contract monitoring meetings at the contractor's place of business and at EPA HQ.

7.2 The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.

- 7.3 The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.
- 7.4 The contractor shall provide technical support for and/or conduct training sessions for DWMAPS users that describe the data in the application, the use of queries and web services, the interpretation of results from using the DWMAPS, and use of the source water assessment generating tool described in Task 5, as the direction of the TOCOR. The trainings incorporating the report generating tool will be conducted at a later phase of the work assignment. EPA will develop agendas, materials, and segments of the training sessions that put DWMAPS tools into the context of Source Water Protection information and other tools, including the Source Water Collaborative's "How-to-Collaborate Toolkit," and develop recordings/webcasts for sustainable transfer of information. The contractor shall provide technical expertise and collaborate with EPA in these preparatory activities. Contractor participation will be via webinar, unless directed by the TOCOR (See Section G: Anticipated Travel).
- 7.4.1 EPA, State and utility users of the public version, prior to its release to the public (provide technical support).
 - 7.4.2 Watershed groups and source water collaborative member users of the public version (provide technical support).
 - 7.4.3 State and utility users of the CDX version (conduct training).
 - 7.4.4 State and utility users of the CDX version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).
 - 7.4.5 Watershed groups and source water collaborative users of the public version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).
- 7.5 The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.
- 7.6 The contractor shall develop training materials to parallel the training above in 7.4 as directed via written technical direction by the TOCOR.
- 7.7 The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.

III. Quality Assurance (QA)

- A. EPA has determined that an existing QAPP will be used for the performance of this work. The

existing QAPP is included in this PWS as an attachment. The contractor shall adhere to the existing QAPP in performing the scope of requested services in this task order.

The contractor shall review the existing QAPP, and verify that it is still appropriate for use. If revisions are needed, the contractor shall include these in the Cost and Technical Proposals. The contractor shall notify the EPA TOCOR at any time during the task order if changes to the QAPP are warranted. If the contractor determines that revisions to the QAPP are warranted, work on this task order cannot proceed until the contractor receives notification of QAPP approval from the POCOR via e-mail.

- B. The contractor shall comply with the contract-level QA guidance in Section 2.6 Quality Assurance (QA) Requirements. The contractor shall comply with the QA guidance for GIS data (QA/G-5G) at: <http://www.epa.gov/QUALITY/qs-docs/g5g-final.pdf>.
- C. Specific QA and data standards sections applicable to tasks 2, 3, 4, 5, and 6 in this task order.
- D. Progress on reviewing proposed existing data and new data sets shall be covered in the monthly progress reports. The monthly progress report shall indicate in a separate QA section, whether significant QA issues have been identified and how the contractor is resolving them.
- E. The contractor shall provide separate spending breakdowns in the monthly progress reports for work pertaining to 1). Operation and Maintenance; 2). DWMAPS enhancements; and 3) Data updates; 4) Technical Support; and 5) Training.
- F. This task order does not require a separate QAPP per Section 2.6.3 QUALITY ASSURANCE PROJECT PLAN (QAPP).
- G. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. Please see the Voluntary Product Accessibility Template (VPAT) at <http://www.itic.org/dotAsset/5644ecd2-5024-417f-bc23-a52650f47ef8.doc>.

IV. Schedule of Benchmarks & Deliverables

Travel in this task order shall be limited to a kickoff meeting and occasional onsite meetings with EPA in Washington, DC per approval by the TOCOR. The travel for any conference or training participation shall be approved by the TOCOR before the travel is scheduled.

When the Task Order reaches 30 calendar days prior to the end of the Period of Performance in a given period, the contractor shall make a determination that the deliverables, milestones, benchmarks, and any outstanding technical direction from the TOCOR, will be satisfactorily completed in the form requested in the PWS by the end of the Period of Performance and for the remaining funding that is available.

If within 30 days prior to the end of the period of performance in a given period, the contractor determines one or more of the above-referenced items will not be able to be completed in the

requested form within the period of performance and with the available funding, the contractor shall notify the TOCOR and the CO immediately. Within 5 business days of said notification, the TOCOR in coordination with the CO will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR all interim draft deliverables, interim work products, and any working files in an electronic format which is supported by EPA, for eventual continuation of the project after the end date of the Task Order.

See attached Schedule of Benchmarks & Deliverables below:

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Base Year: September 2014-September 2015		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.
1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable
1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies or other needs, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	This activity is expected to be completed within the three months of the contract due to the database's name change and an expected server migration within EPA, within 10 business days after receipt of written technical direction of the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	Within 10 business days after receipt of written technical direction of the TOCOR
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As needed and directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports	As needed and directed by the TOCOR.

	and operating the DWMAPS application or components of the system.	
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	This activity may be needed during the second through fourth quarters of the first year of the TO, as directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As needed and directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment	Ongoing.
2	The contractor shall update GIS layers	This activity is expected to begin during the first quarter of the first year of the TO, as directed by the TOCOR.
2	The contractor shall collect, evaluate and develop new datasets.	This activity is expected to begin during the first quarter of the first year of the TO, as directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁴] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	This activity is expected to begin during the first quarter of the first year of the TO, as directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries	This activity is expected to begin during the first quarter of the first year of the TO and continue as needed throughout the duration of the year as EPA identifies new data layers needed within the platform, as directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	This activity is expected to begin during the first quarter of the first year of the TO, and continue as needed through the duration of the year, as EPA identifies new query functions needed based on user feedback. Web service development is expected within 15 business days after receipt of written technical direction from TOCOR

⁴ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
4	Develop Secure Access for States and Utilities	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	This activity is expected to begin during the second quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	This activity is expected to begin during the second quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	This activity is expected to begin during the second quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR. 15 business days after receipt of written technical direction from TOCOR.
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NP DAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As needed and as directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As needed and as directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As needed and as directed by the TOCOR
6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 15 business days

		after receipt of written technical direction from TOCOR.
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR. As directed by the TOCOR
6	The contractor shall provide online user guides to document the use of the federal, public and state/CDX versions of DWMAPS, web services, and source water assessment report-generating tool, updating the guides as needed as new versions of DWMAPS are deployed, at the direction of the TOCOR.	This activity is expected to begin within the first quarter of the first year of the TO for the federal and state/CDX versions and web services; the second and third quarters for the public version and report-generating tool, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	The contractor shall provide technical support for and/or conduct training sessions for DWMAPS users that describe the data in the application, the use of queries and web services, the interpretation of results from using the DWMAPS, and use of the source water assessment generating tool described in Task 5, as the direction of the TOCOR.	This activity is expected to begin within the second and third quarters of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	EPA, State and utility users of the public version, prior to its release to the public (provide technical support).	This activity is expected to take place during the second quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	Watershed groups and source water collaborative member users of the public version (provide technical support).	This activity is expected to begin within the second and third quarters of the first year of the TO, with

		deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	State and utility users of the CDX version (conduct training).	This activity is expected to begin during the second quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	State and utility users of the CDX version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).	This activity is expected to begin within the third quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	Watershed groups and source water collaborative users of the CDX version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).	This activity is expected to begin within the third quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	Upon delivery of the EPA, State/CDX and public versions of DWMAPS, the web service, and the reporting generating tool, as directed by the TOCOR.
7	The contractor shall develop training materials to parallel the training above in 7.4 as directed via written technical direction by the TOCOR.	This activity is expected to begin within the second and third quarters of the first year of the TO, with deliverables expected within 15 business days after receipt of written technical direction from TOCOR.
7	The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.	As needed and as directed by the TOCOR

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Option Year I: September 2015-September 2016		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.
1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable

1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	As directed by the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	As directed by the TOCOR.
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.	As directed by the TOCOR.
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	As directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment	As directed by the TOCOR.
2	The contractor shall update GIS layers	As directed by the TOCOR.

2	The contractor shall collect, evaluate and develop new datasets.	As directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁵] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	As directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries	As directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	15 business days after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	10 business days after receipt of written technical direction from TOCOR
4	Develop Secure Access for States and Utilities	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	15 business days after receipt of written technical direction from TOCOR
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As directed by the TOCOR
6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI,	As directed by the TOCOR

⁵ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

	TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	As directed by the TOCOR
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	As directed by the TOCOR
6	The contractor update online user guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.	As directed by the TOCOR
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	As directed by the TOCOR
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	As directed by the TOCOR
7	The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.	As directed by the TOCOR

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Option Year II: September 2016-September 2017		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.
1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable

1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	As directed by the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	As directed by the TOCOR.
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.	As directed by the TOCOR.
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	As directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment	As directed by the TOCOR.
2	The contractor shall update GIS layers	As directed by the TOCOR.

2	The contractor shall collect, evaluate and develop new datasets.	As directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁶] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	As directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries	As directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	15 business days after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	10 business days after receipt of written technical direction from TOCOR
4	Develop Secure Access for States and Utilities	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	15 business days after receipt of written technical direction from TOCOR
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As directed by the TOCOR
6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI,	As directed by the TOCOR

⁶ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

	TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	As directed by the TOCOR
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	As directed by the TOCOR
6	The contractor update online user guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.	As directed by the TOCOR
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	As directed by the TOCOR
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	As directed by the TOCOR
7	The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.	As directed by the TOCOR

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Option Year I: September 2017-March 2018		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.
1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable

1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	As directed by the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	As directed by the TOCOR.
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.	As directed by the TOCOR.
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	As directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment	As directed by the TOCOR.
2	The contractor shall update GIS layers	As directed by the TOCOR.

2	The contractor shall collect, evaluate and develop new datasets.	As directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁷] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	As directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries	As directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	15 business days after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	10 business days after receipt of written technical direction from TOCOR
4	Develop Secure Access for States and Utilities	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	15 business days after receipt of written technical direction from TOCOR
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NP DAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As directed by the TOCOR
6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI,	As directed by the TOCOR

⁷ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

	TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	As directed by the TOCOR
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	As directed by the TOCOR
6	The contractor update online user guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.	As directed by the TOCOR
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	As directed by the TOCOR
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	As directed by the TOCOR
7	The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.	As directed by the TOCOR

When the Task Order reaches 30 calendar days prior to the end of the Period of Performance, the contractor shall make a determination that the deliverables, milestones, benchmarks, and any outstanding technical direction from the TOCOR, will be satisfactorily completed in the form requested in the PWS by the end of the Period of Performance and for the remaining funding that is available.

If the contractor determines one or more of the above-referenced items will not be able to be completed in the requested form within the period of performance and with the available funding, the contractor shall notify the TOCOR and the CO immediately. Within 5 business days of said notification, the TOCOR in coordination with the CO will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR all interim draft deliverables, interim work products, and any working files in an electronic format which is supported by EPA, for eventual continuation of the project after the end date of the Task Order.

VII. Deliverables

All deliverables (draft and final) to EPA shall be furnished in an electronic format that EPA can support (see TSAWP Contract PWS Section 4.0 Deliverables). All final deliverables shall be prepared according to EPA publication guidelines and shall be compliant with Section 508 of the Americans with Disabilities Act.

All draft and final deliverables from the contractor under this PWS are potentially subject to Freedom of Information Act requests.

All submittals to EPA shall be formatted as described below:

- Any written reports, summaries or analysis documents shall be in electronic Microsoft Word®.
- Any and all spreadsheets, raw data, coding and modeling work (including all model runs with essential data to replicate model runs) shall be in electronic Microsoft Excel® or XML formats.

Appropriate electronic format that is supported by EPA and printing of all GIS data layers, maps, photos, bench sheets and other written material not easily printed or saved in the above formats will be discussed and a format agreed upon with the EPA TOPO prior to submittal by the contractor.

G. Anticipated Travel

All travel under this Task Order shall be in compliance with contract requirements and only according to specific written Technical Direction from the TOPO. (See contract clause H-17). The following travel is anticipated under the following Tasks:

Task 7.1 – Quarterly travel to EPA Headquarters in Washington, DC, for one-day in-person meetings are anticipated. The vast majority of the interactions being conducted through conference calls. The number of contractor personnel required for each trip will be provided to the contractor through written technical direction from the TOPO – in general, one (1) or (2) contractor personnel will be required.

Task 7.4 – Provision of technical support for training sessions for DWMAPS users shall be achieved via webinar wherever possible. At the direction of the TOCOR, one contractor personnel may be anticipated to travel to conduct in-person training sessions with state and utility users of the CDX version of DWMAPS and watershed group and source water collaborative users of the public version (7.4.3, 7.4.4 and 7.4.5), contractor may be expected to travel for one day to conduct in-person training sessions, at locations to be determined as directed by the TOCOR.

Task 7.7. The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR. One (1) contractor personnel would be required to travel for one (1) day of a conference, at a location to be determined as directed by the TOCOR.

H. Contractor Identification

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the EPA TOPO.

I. Meeting guidelines and limitations:

Travel is not anticipated to be routine under this contract. EPA expects that the majority of the dollars to go toward the development of the DWMAPS GIS platform. EPA projects that none of the individual meetings identified in these tasks will exceed a total cost of \$2,000 with total travel not to exceed \$10,000 in any performance period. The contractor shall immediately notify the EPA Contracting Officer, PO and TOPO of any anticipated individual event which meets the definition of a “conference,” with total net expenditures anticipated to be greater than \$20,000.

A **"conference" or "conference-related activity"** is an internal or external meeting, retreat, seminar, symposium or event that involves expenses from the following categories:

attendee travel paid for by the EPA; training activities; or EPA hosted or co-hosted, sponsored or co-sponsored events incurring speaker fees, food and refreshment expenses, non-federal facility expenses, audio visual expenses and/or contract related conference expenses. **"Conference expenses"** are all direct and indirect conference costs paid by the government, whether paid directly by agencies or reimbursed by agencies to travelers or others associated with the conference, but do not include funds paid under federal grants to grantees. Conference expenses include any associated authorized travel and per diem expenses, hire of rooms for official business, audiovisual use, light refreshments, registration fees, ground transportation, and other expenses as defined by the Federal Travel Regulation. All outlays for conference preparation and planning should be included. The FTR provides some examples of direct and indirect conference costs included within conference expenses. After notifying EPA of the potential to reach this threshold, the contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

K. VALIDATION OF SECTION 508 COMPLIANCE OF TASK ORDER DELIVERABLES

The Contractor shall support the TOPO in conducting a “Final Deliverable Validation” to ensure compliance with Section 508 and the Federal Acquisition Regulations (FAR) related to “ electronic and information technology (EIT) deliverables”. The Contractor shall furnish certification, in writing, to the TOPO that the Contractor has complied with EPAAR Clause 1552.211-79 “Compliance with EPA Policies for Information Resources Management”, including the requirement that all electronic and information technology (EIT) deliverables be Section 508 compliant in accordance with the policies referenced at

<http://www.epa.gov/accessibility/> .

V. Attachments

- A. Data Updates Required to Enhance the GIS Capabilities of the DWMAPS
- B. DWMAPS Clean Water Act Business Questions
- C. Sample DWMAPS Source Water Protection Report
- D. Quality Assurance Project Plan (QAPP) Task Order 020 Drinking Water Mapping Application (DWMA) Support Prepared by Environmental Health and Economics Division RTI International, Research Triangle Park, NC 27709 EPA Contract Number EP-C-08-003, 31 March 2010 (used in 2011 and 2012 task orders).

Attachment A: Data Updates Required for Enhancing the GIS Capabilities of the DWGP

The projects listed below supporting continued participation in OW and cross-Agency projects require good quality data and GIS analytical capabilities. The categories listed below clarify the needs for updating the current data used in OGWDW and for identifying new needs for data. Most importantly however, is to build the capability within OGWDW to participate in EPA initiatives such as the GeoPlatform to make the data and GIS analytical functions available across EPA. These projects will enable OGWDW to continue to provide both internal and external partners with the GIS capabilities for improving the protection of drinking water and source water.

Last updated: 11/19/2013

PRIORITY	Phase	DATE	% Complete	LOE	DRINKING WATER DATA
High	II	3 months after receipt of SDWIS/FED data	5%		1) SDWIS/Fed drinking water data: Obtain the most complete & consistent data from the latest quarter and use that update to meet the RAD project, other data requests and GIS analysis projects.
High	II	3 months after receipt of SDWIS/FED data	80-90% ready to <u>begin</u> processing once new SDWIS is received and prepared for processing		2) Source Protection Areas (SPAs): Perform GIS analysis to update SPAs using SDWIS/Fed download from (1) above.
High	II	3 months after receipt of SDWIS/FED data	Same as above		3) Update HUC12 uses: Update density maps used in MyWATERS Mapper (MWM) and Nitrogen Phosphorous Data Access Tool (NPDAT) using the latest NHDPlus Version 2.1 from EPA.
Medium	II/III	TBD		TBD	4) New HUC12 density maps: Develop new HUC12 density maps based on source water requirements [nitrate violation or TMDL map for the <u>Water Data Project</u> /OWOW); occurrence trends for selected contaminants; NPDWR violations for selected contaminants; potential sources of contamination (P-SOCs) to PWS from NPDES waste discharges; or to develop a better water indicator display for the <u>E[SCREEN tool]</u> and NEPAassist.

				GIS ANALYSES	
High	II	3 months after receipt of SDWIS/FED data			1) GIS Data Preparation: Georeference and reach index all drinking water data including all facilities and SPAs to NHDPlus in line with (1) and (2) above.
High	II	3 -4 months after receipt of SDWIS/FED data			2) Metadata Development: Update all metadata in line with EPA geospatial standards (January 2006) and metadata requirements from EPA and Federal Geographic Data Committee (FGDC).
High	II	TBD 2013/14	10%		3) DWMA Data Warehouse analyses: Perform and update DWMA data warehouse tables and calculations that are used in the current DWMA and in the DW GeoPlatform application. Note: Dependent upon timing of obtaining and processing high priority datasets.
				UPDATE DATA LAYERS FROM DWMA	
High	II	Nov-Feb 2013/14	Use Phase II list for this work.		1) Dataset update: Identify from the following list the datasets with newer versions (current version date in parentheses) and update as applicable depending on internal GIS needs. See Phase II Dataset Update list below.
Medium	II/III	Sept 2013 – Mar 2014	TBD by EPA and progress of SRS report development.	TBD	2) SDWIS Data Warehouse Data Improvements: Work with the EPA Information Systems (IS) and Data Analysis Team (DAT) to improve the geospatial data within SDWIS/Fed with the EPA regions and states, and to provide technical support/guidance in the development of drinking water data use in the GeoPlatform, the Data Warehouse (SFDW), and the Standard Reporting Services (SRS Reports).
					INVESTIGATE ADDITIONAL DATA LAYERS FOR GIS ANALYSES
Low	II	TBD		TBD	1) UIC related projects: Investigate GIS data projects for UIC and related UIC projects including: hydraulic fracturing; aquifer exemptions, methane gas production; and locational data from UIC database.
Low	II	TBD		TBD	2) Other data layers for drinking water GIS analyses: Investigate how Census Bureau data relating to population, income levels, census block level data, and environmental justice data can be used to protect PWS and source water areas.

Low	III	TBD		TBD	3) Investigate other water issues: Identify through available models (WaterFall™, SPARROW, etc.) public water supplies that are affected by water availability/shortages using various scenarios in support of EPA projects.
					ANCILLARY FEDERAL DATABASES
Low	II/III	TBD		TBD	1) Other Federal datasets: Identify other federal datasets from USGS, USDA, Census, USFS, NOAA, DOD, and states that can be used in drinking water, source water protection, and underground injection control programs.

Dataset Updates for 2013/2014

Phase II

1. NPDES (Summer 2007)
2. CERCLA (July 2007)
3. RCRA (July 2007)
4. CSO (August 2004)
5. AFO (HSIP 2007)
6. SSA (January 2009)
7. UIC (all classes in current UIC Database , January 2013)

Phase II or III

1. UST (HIFLD)
2. Karst (1984)
3. DOD (December 2005)
4. Tribal (3rd Quarter 2006)
5. Ground Water Regions (1984)
6. Principal Aquifers ((October 2003)
7. Surficial Geology (1979)
8. FEMA Q3 (2003?)
9. NOAA Coastal Counties (Date not noted)
10. Dry Cleaners (HIFLD)

Attachment B
DWMAPS Clean Water Act Design Needs

:

1) §305(b) Assessments

- a) Which waters within *Updated SWPAs* have been assessed for which uses?
- b) In what year did each assessment occur?
- c) Which waters within *Updated SWPAs* have not been assessed in the last 20 years?

2) §303(d) Impairments

- a) Which waters within *Updated SWPAs* have been listed as impaired for which uses?
- b) What is the probable cause given for each impairment (is there a lookup table)?
- c) What year was each impairment first listed and most recently listed?

3) §303(d) TMDLs

- a) Which waters with *Updated SWPAs* have completed TMDLs for which pollutants?
- b) For each TMDL, what is the distribution of WLAs to which discharge points?
- c) For each TMDL, how does the WLAs allocation translate to a maximum concentration at the PWS intake (modeling)

4) NPDES / ICIS

- a) What pollutants are listed for in the permit application (§308?) for each discharger in a *Updated SWPAs*?
- b) Which of those pollutants are regulated as drinking water contaminants?
- c) What are the effluent limits for each of the pollutants regulated as drinking contaminants?
- d) Which pollutants regulated as drinking water contaminants do not have effluent limits?
- e) For which pollutants regulated as drinking water contaminants is the discharger in compliance or in violation?

■

I. Introduction

DWMAPS will feed information into an automated report template, which will be designed to compile and present DWMAPS search results in a detailed and descriptive format. This tool will offer templates for writing source water assessment updates specific to the priorities of:

1. Utilities
2. State practitioners
3. Public users

The tool will use DWMAPS metadata to produce charts and tables, and provide users with editing options and text templates to customize each report and supplement data with the author's description.

II. Purpose

Many informational and technical barriers prevent utilities, state drinking water professionals, and other stakeholders from updating Source Water Assessments. The DWMAPS report writer (hereafter, the "Writer") is designed to make it easier to document potential sources of contamination and water quality information that may affect source waters. In addition to synthesizing and translating data from national databases, the Writer will allow users to "write in" information from local records, improving the report's relevance to communities and practitioners in the field.

III. Software Specifications

1.a) Audience-Specific Interface

User identity will determine report interface.

The Writer interface will have several versions, each tailored to the needs of specific user groups. The interface will vary depending on whether users access DWMAPS via State CDX log-in (state version), Utility CDX log-in (utility version), or public website (public version). Differences between Writer versions will be most visible in the level of informational detail; technical/non-technical language; and data options. For example, the State Writer will incorporate more regulatory language and include analyses cross-walking Clean Water Act and Safe Drinking Water Act areas of concern.

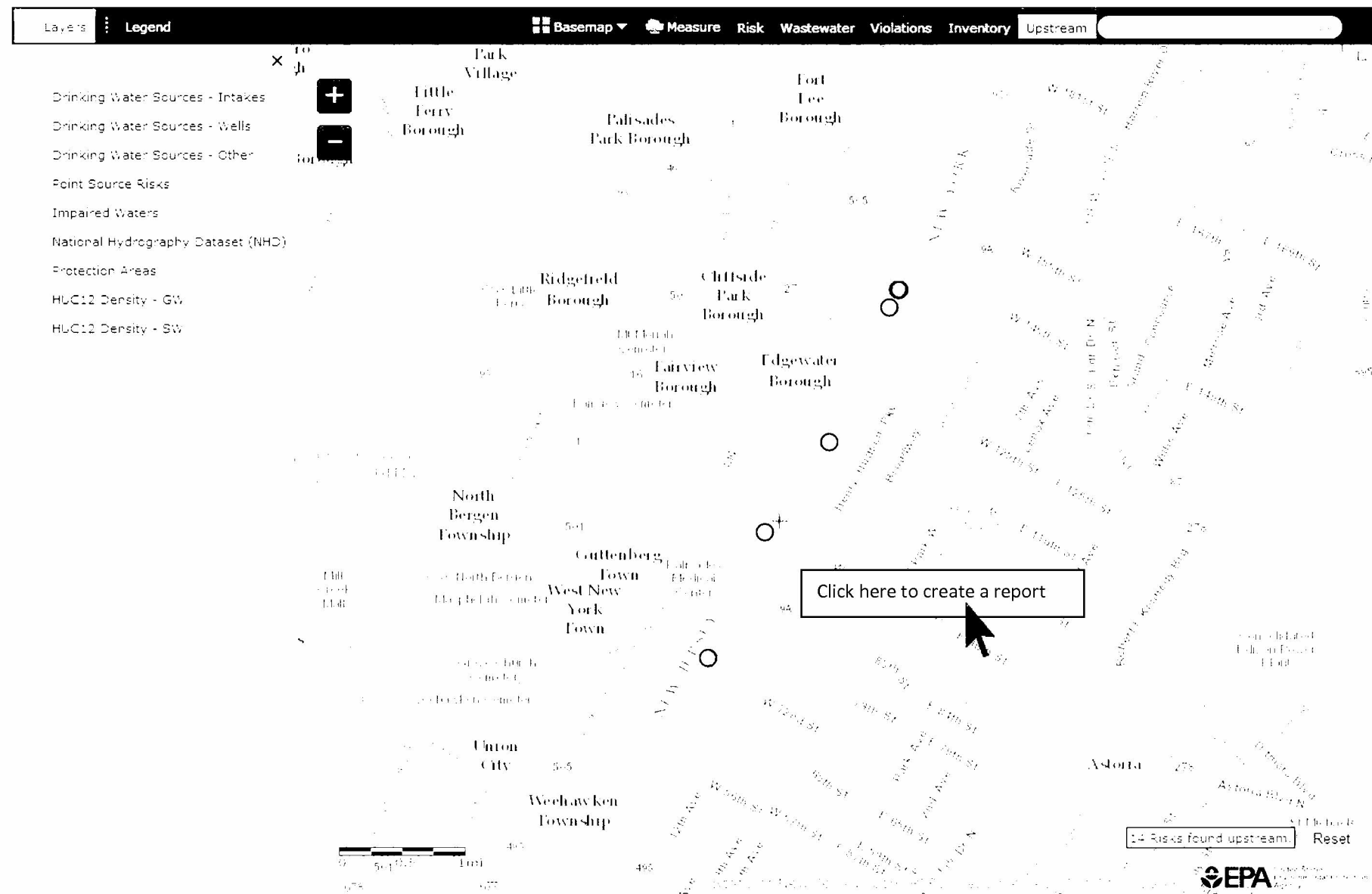
1.b) Accessing the Report Writer

Each time DWMAPS produces results, a text window will prompt users to write a report based on those results.

User queries in DWMAPS will automatically trigger the Writer, which will appear as a user option alongside query results. The same filters used to create a map will apply to report content. In order to illustrate this, and other basic specifications of the Writer, abbreviated mock-ups below display an example of how the Writer might appear to **a utility** using the following query:

>Upstream > Find Risks of Type: "All" >Within 24 hours upstream of (lat, long)

Potential Sources of Contamination



Report builder

Report information about:

Potential Sources of Contamination

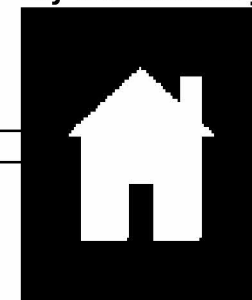
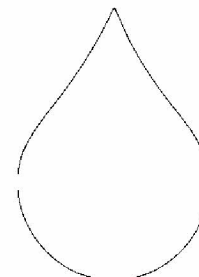
My Water Quality

PSCs Upstream

PWSs Nearby

My Community

?



Icons to be replaced



*Links to Water Security Division
resources, etc.*

Report builder

Potential Sources of Contamination (PSCs)

Click to Report

PCS Upstream

All PSCs



Wastewater Treatment

4



Industrial/Commercial

7

Underground Storage Tanks

67

Leaking Underground Storage Tanks

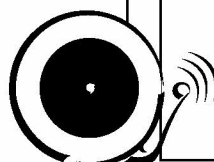
12

Petroleum Pipelines

1

Sewage Overflow

1



IN AN EMERGENCY?


Allows user to edit any text in
window (see below)

Potential Sources of Contamination *(edit text)*


2

Wastewater Treatment Plants (4)

Click on column to sort table by values

Facility Name, Address		Distance Upstream	Days since Inspection	Violations in 2014	<u>Add columns</u>
Cullman WWTP	1707 Coonskin Dr., WV 25311	2.3 hours	374 days	Yes	
Fayette WWTP	<input type="text"/>	3.4 hours	231 days	No	
Jimmy Carr WWTP	1707 Coonskin Dr., WV 25311	7.4 hours	310 days	No	
Daleville West Side WWTP	1707 Coonskin Dr., WV 25311	12 hours	126 days	Yes	

Industrial/Commercial Dischargers (7)

Facility Name, Address		Distance Upstream	Days since Inspection	Violations in 2014	<u>Add columns</u>
Wise Alloys LLC	1707 Coonskin Dr., WV 25311	1.8 hours	415 days	Yes	
Thorpe Construction Co.	1707 Coonskin Dr., WV 25311	5.8 hours	158 days	No	
Sylacauga Operations	1707 Coonskin Dr., WV 25311	18 hours	210 days	Yes	
SMI Steele Co.	1707 Coonskin Dr., WV 25311	21.3 hours	331 days	No	
SMI Steele Co.	1707 Coonskin Dr., WV 25311	22.2 hours	174 days	No	

+ Add PCSs from my records

Adds a row to table and
allows text input.

Save

Add information about:

Tracks progress in report and allows user to toggle between inconsecutive report segments.

3**PSC Identification**

✓	Street Address	SIC Code	City	EPA Region	✓	Distance Upstream
✓	Facility Name	FIPS Code	State	Federal Agency Code		Latitude
	Info from my records	NAICS Code	Zip	FRS ID		Longitude

Contact a PSC

Mailing

Telephone

Info from my records**Pollutants**

Pollutants Discharged (NPDES)	TRI Surface Water Releases	Discharge into Impaired Waters
Pollutants Discharged (ref industry)	TRI POTW Transfers	Pollutants with Violation
Info from my records		

Compliance History

Recent Record (all)	Current Compliance Status	✓	Discharge/Release Violations in 2014
Regulatory Authorities	Days since Inspection		Noncompliance Event Summary
Info from my records	✓		Quarters in Noncompliance (3 yrs)
	Date of Last Inspection		% Exceedance per Quarter (3 yrs)
	Significant Noncompliance in 2014		

Enforcement Actions

Recent Record (all)	# Informal Actions	# Formal Action
Info from my records	Informal Action Summary	Formal Action Summary
	Date Last Informal Action	Date Last Formal Action (EPA)
		Date Last Formal Action (State)

+ Add original facility documentation

Appended to report from
ECHO, TRI, DMR reports

Save _____

Organize your report

Default

Custom: "Selected Topics" pallet is populated by topics checked by user in Window 3.

Selected Topics

Facility Name, address, lat, long (automatic) ▲

PSC IDENTIFICATION

SIC Code

City

State

EPA Region

FRS ID

CONTACT A PSC

Mailing address

POLLUTANTS

Pollutants Discharged (NPDES)

TRI Surface Water Releases

COMPLIANCE AND ENFORCEMENT

Current Compliance Status

Date of Last Inspection

Informal Action Summary

Formal Action Summary

Date Last Informal Action

Date Last Formal Action (State)

ADDITIONAL DOCUMENTATION

Response Management Plans

Enforcement Case Reports

Transcripts CWA Permit Limits

Add to Report

Potential Sources of Pollution (*edit text*)

I. Facility Summary



SIC Code

City

II. Discharges and Releases Upstream



III. Compliance and Enforcement



Add to Appendix

Appendix A



Transcript: CWA Permit Limits

Appendix B



Enforcement Case Reports

Appendix C



Response Management Plans

Save

Window 5 is the Report Preview, which will include text boxes allowing users to insert text and options to edit existing text. Will also include ability to download the report to Excel and PDF formats, and a "Next" button that leads to the following screen.

Report information about:

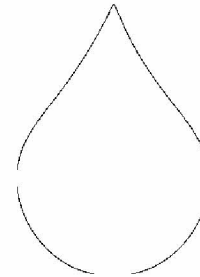
(Bar marks progress)

My Water Quality

PSC Upstream

PWSs Nearby

My Community



My Water Quality

Add to Report

All Waters

Hudson River	Polluted 2010
Bronx River	Polluted 2010
Barney Brook	Unassessed
Wickers Creek	Polluted 2010
Unnamed Waters	Polluted 2010
Unnamed Waters	Unassessed
Cresskill Brook	Unassessed


My Water Quality* *(edit text)*

*Surface water

*Allows users to
quickly prioritize
waters/features*

2

12 Hours Upstream*Click on column to sort table by values*

Name of Water	HUC12	Status	Pollution Cause	<u>Add columns</u>
Flowline 105838	Sparkill Creek—Hudson River, 020301010404	TMDL	Mercury, PCBs, Nitrogen and...	
Harlem River	East River—Hudson River, 020301010405	Unassessed		
Flowline 104819	Saw Mill River, 020301010403	<div></div>		
Hudson River	East River-Hudson River, 020301010405	TMDL	Mercury, PCBs, Dioxin, Pes...	
Cresskill Brook	Upper Hackensack River, 020301030903	TMDL	Metals, Dioxins, Ammonia...	

12-18 Hours Upstream

Name of Water	HUC12	Status	Pollution Cause	<u>Add columns</u>
Flowline 106424	Upper Hackensack River, 020301030903	TMDL	Low Oxygen, Bacteria...	
Bronx River	Lower Bronx River, 020301020103	TMDL	Mercury, Nitrogen and Ph...	
Barney Brook	Sparkill Creek—Hudson River, 020301010404	Impaired	Pathogens, Nutrients	
Wickers Creek	Sparkill Creek—Hudson River, 020301010404	Unassessed		
Flowline 105487	Sparkill Creek—Hudson River, 020301010404	Impaired	Nutrients	

[+ Add Waters from my records](#)

Save _____

Add information about:

3

Waters IDs

✓	HUC12	HUC6	Water Type	EPA Region	Assessed/Impaired Line Code
	HUC10	HUC4	NHD Reachcode	State	
	HUC8	HUC2	Reach Length	Zip	
	Info from my records	Catchment	✓ Name of Water		

Contact a State Program

State Clean Water Admin	State 319 Program	State Conservationist
Contact	Contact	Contact
Info from my records		

Pollution

✓	Status (TMDL/Impaired/Unassessed)	Date of Assessment (date/unassessed)	Top Pollutants (pounds)
✓	Cause of impairment or TMDL	Date of TMDL	Top Pollutants (toxic-weighted pounds)
	Info from my records		All Pollutants

Dischargers

Top SIC Discharges (by toxic-weighted pounds)	Top Loading PSC (by toxic-weighted pounds)
Top SIC Discharges (by pounds)	Top Loading PSC (by pounds)
Info from my records	Total PSC Count

Actions Taken

TMDL Cleanup Plan (date started/none)	319 Projects (date/none)
TMDL Cleanup Plan (finished/unfinished)	319 Projects (finished/unfinished)
Info from my records	

Save

Organize your report

Default

Custom:

Selected Topics

Add to Report

Name of Water, HUC12 (automatic) ▲

WATERS IDs

HUC10

HUC2

Water Type

NHD Reachcode

Reach Length

EPA Region

State

Zip

Assessed/Impaired Line Code

CONTACT A REGULATOR

State Clean Water Admin

Contact

POLLUTION

Assessed (date/unassessed)

Impaired (y/n)

TMDL (date/n)

Cause of TMDL

Top Pollutants (pounds)

DISCHARGERS

Total PSC Count

ACTIONS TAKEN

TMDL Cleanup Plan (date/n)

TMDL Cleanup Plan (finished/un)

My Water Quality (*edit text*)

I. Source Water Summary



Water Type

II. Pollutants



III. Dischargers



IV. Actions Taken and Contact



Add to Appendix

Appendix A



Appendix B



Appendix C



Save _____

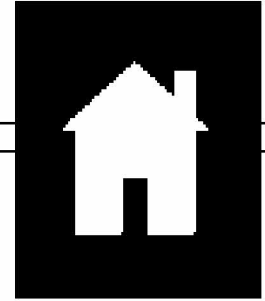
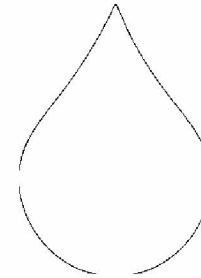
Report information about:

My Water Quality

PSC Upstream

PWSs Nearby

My Community



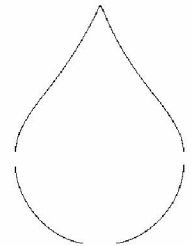
Public Water Systems Nearby

Add to Report

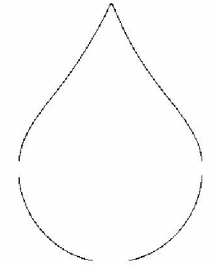
Population Served

All PWSs

New York City System	8271000
Oradell Reservoir	792713
Palisades Interstate Park	510
Bogota Swim Club	312
Harsbruck Heights Swim Club	257
Englewood Hospital	2400
Rudox Engine and Equipment	34
Kiki Alpine Restaurant	120
First Unitarian Church	100



1



2



Public Water Systems Nearby

[Columns in table will show user

PWS Type

Source Type

Organization (e.g., school or daycare; wholesaler)

Type of Area Served

Population Range

EPA Region

County Served

City Served

Tribal Code

Zip Code

(Same format as with PSCs, Waters, etc.)]

Subsequent screens will proceed in a similar fashion. Each “chapter” (PSC, Water Systems, etc.) will begin with a display of priority data, allowing users to choose facilities, stream segments, or other entities of greatest interest, and continue to a catalogue of options for additional information.

The final view (5th window under each tab) will be the Final Report Preview, which will include text boxes allowing users to insert text, and options to edit existing text. This Preview will also allow users to download the report in Excel and PDF formats, and append maps. Additionally, the Preview will include a “Publish a One-Pager” option to produce a brief summary of priority data (see below).

All versions will contain icons prompting users to connect with external resources, where relevant (for example see page 3: “In an emergency?” link to EPA Water Security Division resources). Additionally, the Final Report view will suggest “next steps” that include tools for networking with others in the same geographic area or sector. For example, the Utility version will prompt users to register with Mutual Aid and Assistance networks (WARNS), and link to the “How to Collaborate” toolkit map of nearby Source Water Collaboratives.

IV. Databases for Report Features

HUC12	WBD/NHD/ WATERS
HUC10	WBD/NHD/ WATERS
HUC8	WBD/NHD/ WATERS
HUC6	WBD/NHD/ WATERS
HUC4	WBD/NHD/ WATERS
HUC2	WBD/NHD/ WATERS
Water Type	NHD/ WATERS
NHD Reachcode	NHD/ WATERS
Reach Length	NHD/ WATERS
EPA Region	WATERS
State	NHD/ WATERS
Zip	WATERS
Assessed/Impaired Line Code	ATTAINS/WATERS
State Clean Water Admin	(link ACWA)
Contact	(link ACWA)
State 319 Program	(link EPA NPS)
Contact	(link EPA NPS)
State Conservationist	(link USDA-NRCS)
Contact	(link USDA-NRCS)
Status (TMDL/Impaired/Unassessed)	ATTAINS/WATERS
Pollution Cause (of impairment or TMDL)	ATTAINS/WATERS
Date of Assessment (date/unassessed)	ATTAINS/WATERS
Date of TMDL	ATTAINS/WATERS
Top Pollutants (pounds)	ICIS NPDES/PCS (see DMR)
Top Pollutants (toxic-weighted pounds)	ICIS NPDES/PCS (see DMR)
All Pollutants	ICIS NPDES/PCS (see DMR)
Top SIC Discharges (by toxic-weighted pounds)	ICIS NPDES/PCS (see DMR)
Top SIC Discharges (by pounds)	ICIS NPDES/PCS (see DMR)
Top Loading PSC (by toxic-weighted pounds)	ICIS NPDES/PCS (see DMR)
Top Loading PSC (by pounds)	ICIS NPDES/PCS (see DMR)
Total PSC Count	ICIS NPDES/PCS (see DMR)
319 Projects (date/none)	GRTS
319 Projects (finished/unfinished)	GRTS
PSC Identification	FRS
Street Address	FRS
Latitude	FRS
Longitude	FRS
SIC Code	FRS
FIPS Code	FRS
NAICS Code	FRS
City	FRS
State	FRS
Zip	FRS
EPA Region	FRS
Federal Agency Code	FRS
FRS ID	FRS

Mailing	FRS
Telephone	FRS
Affiliation	FRS
Full Name	FRS
Pollutants Discharged (NPDES)	ICIS NPDES/PCS (see DMR)
Pollutants Discharged (ref industry)	TRI (see DMR)
TRI Surface Water Releases	TRI (see DMR)
TRI POTW Transfers	TRI (see DMR)
Dischargers into Impaired Waters	ICIS NPDES
Pollutants with Violation	ICIS FC&E (see ECHO)
Current Compliance Status	ICIS FC&E (see ECHO)
Inspections	ICIS FC&E (see ECHO)
Days since Inspection	ICIS FC&E (see ECHO)
Date of Last Inspection	ICIS FC&E (see ECHO)
Violations within Year	ICIS FC&E (see ECHO)
Noncompliance Event Summary	ICIS FC&E (see ECHO)
Quarters in Noncompliance (3 yrs)	ICIS FC&E (see ECHO)
% Exceedance per Quarter (3 yrs)	ICIS FC&E (see ECHO)
# Informal Actions	ICIS FC&E (see ECHO)
Informal Action Summary	ICIS FC&E (see ECHO)
Date Last Informal Action	ICIS FC&E (see ECHO)
# Formal Action	ICIS FC&E (see ECHO)
Formal Action Summary	ICIS FC&E (see ECHO)
Date Last Formal Action (EPA)	ICIS FC&E (see ECHO)
Date Last Formal Action (State)	ICIS FC&E (see ECHO)

V. Acronyms

ACWA	Association of Clean Water Administrators
DMR	Discharge Monitoring Report
ECHO	Enforcement and Compliance History Online
EPA NPS	EPA Nonpoint Source Program
FRS	Facility Registry Services
GRTS	Grants Reporting and Tracking System
ICIS FE&C	Integrated Compliance Information System for Federal Compliance and Enforcement
ICIS NPDES	Integrated Compliance Information System for the National Pollutant Discharge Elimination System
NHD	National Hydrography Dataset
PCS	Permit Compliance System
TRI (see DMR)	Toxics Release Inventory
USDA-NRCS	United States Department of Agriculture Natural Resource Conservation Service
WATERS	Watershed Assessment, Tracking, and Environmental Results
WBD	Watershed Boundary Dataset

Report

About this point

Latitude and Longitude: 40.838735, -73.957906

Place Name: New York, NY

County: New York

Water Body Name: Hudson River

Water is impaired, pollutants include: Dioxins, Mercury, PCBs, Pesticides, Toxic Organic Chemicals

Drinking Water

System

Population Served

New York City System

8271000

Englewood Hospital

2400

Palisades Interstate Park

510

Bogota Swim Club

312



Potential Sources of Contamination

Source Type

Sources Nearby

Industrial/Commercial

5

Wastewater Treatment

6

Underground Storage Tanks

67

Leaking Underground Storage Tanks

12

Petroleum Pipelines

1

Sewage Overflow

1

Community

Number of Households in County: 738,644

Hospitals: 5

Schools and Day Care Centers: 214

Under 5 Years Old: 77th percentile in US

EJ Index "Burden from Water Pollution": 73rd percentile in US



1552.217-71 Option to extend the term of the contract-cost-type contract. (APR 1984)

The Government has the option to extend the term of this contract for 3 additional period(s) (two 12 month periods and 1 six month period). If more than 30 days remain in the contract period of performance, the Government, without prior written notification, may exercise this option by issuing a contract modification. To exercise this option within the last 30 days of the period of performance, the Government must provide to the Contractor written notification prior to that last 30-days of the period. This preliminary notification does not commit the Government to exercising the option. The Government's estimated level of effort is 455 direct labor hours for the base, 440 for first option period, 435 for the second option period. Use of an option will result in the following contract modifications:

(a) The "Period of Performance" clause will be amended to cover a base period and option periods:

Period	Start Date	End Date
Base Period	10/29/2014	09/27/2015
Option Period 1	09/28/2015	09/27/2016
Option Period 2	09/28/2016	09/27/2017
Option Period 3	09/28/2017	03/27/2018

(b) Paragraph (a) of the "Level of Effort" clause will be amended to reflect a new and separate level of effort of:

Period	Level of Effort
Base Period	2997
Option Period 1	685
Option Period 2	685
Option Period 3	377

(c) The "Estimated Cost and Fixed Fee" clause will be amended to reflect increased estimated costs and fixed fee for each option period as follows:

Period	Estimated Cost	Fixed Fee	Total CPFF
Base Period	(b)(4)	(b)(4)	\$337,854
Option Period 1			\$78,662
Option Period 2			\$78,970
Option Period 3			\$44,108

(d) If the contract contains "not to exceed amounts" for elements of other direct costs (ODC), those amounts will be increased as follows: N/A

B-2 LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is \$337,854.

B-3 LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of fixed fee. The amount allotted for costs is estimated to cover the contractor's performance through 9/20/2015.

(b) When the contract is fully funded as specified in the Estimated Cost and Fixed Fee Clause (EP 52.216-190), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-12-054 Task Order 0006			
	Estimated Cost	Fixed Fee	<u>Cost Plus Fixed Fee</u>
Initial Award	(b)(4)	(b)(4)	\$330,175.88
Total Funded			\$300,000.00
Total Task Order			\$337,854
Balance Unfunded			\$7,678.12

SECTION F - Deliveries or Performance

F-1 LOCAL CLAUSES EPA-F-12-101 PERIOD OF PERFORMANCE

The period of performance of this contract shall be from 10/31/2014 through 9/27/2015 of all required reports.

SECTION G - Contract Administration Data

G-1 LOCAL CLAUSES EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Contract-Level Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Sherri Comerford
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 4606M
Washington, DC 20460
Phone: 202-564-3754
Comerford.sherri@epa.gov

Contracting Officials responsible for administering this contract are as follows:

Noelle Mills
26 West Martin Luther King Drive
Mail Code: NWD1
Cincinnati, OH 45268
Phone: 513-487-2171
mills.noelle@epa.gov

Courtney Stallworth
26 West Martin Luther King Drive
Mail Code: NWD1
Cincinnati, OH 45268
Phone: 513-487-2002
stallworth.courtney@epa.gov

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 2									
2. AMENDMENT/MODIFICATION NO. 001		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)									
6. ISSUED BY (FOR U.S. MAIL ONLY) US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		CODE CPOD		7. ADMINISTERED BY (If other than Item 6) CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		CODE CPOD									
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) R T I International Attn: DEBORAH ELLISON PO BOX 12194 (b)(4) RESEARCH TRIANGLE PARK NC 277092194				(x)											
				9A. AMENDMENT OF SOLICITATION NO.											
				9B. DATED (SEE ITEM 11)											
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-12-054 0006											
CODE (b)(4)		FACILITY CODE		10B. DATED (SEE ITEM 13) 10/31/2014											
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS															
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.															
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule															
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td>X</td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> </table>								CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.	X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:		D. OTHER (Specify type of modification and authority)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.														
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).														
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:														
	D. OTHER (Specify type of modification and authority)														
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.															
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) DUNS Number: (b)(4) Drinking Water Mapping Application for Protecting Source Waters (DWMAPS) Task Order 0006 The purpose of this modification is to correct the period of performance error. The correct period of performance for this task order is 10/31/2014 through 9/27/2015. TOPO: Sherri Comerford Max Expire Date: 03/27/2018 LIST OF CHANGES: Reason for Modification : Other Administrative Action Period Of Performance Start Date changed from 2014-10-29 to 2014-10-31 Continued ... Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.															
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)											
				Courtney Stallworth											
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		1"  ELECTRONIC SIGNATURE		16C. DATE SIGNED 11/04/2014									
(Signature of person authorized to sign)															

NAME OF OFFEROR OR CONTRACTOR
R T I International

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	CHANGES FOR LINE ITEM NUMBER: 1 Start Date changed from 2014-10-29 to 2014-10-31 FOB: Destination Period of Performance: 10/31/2014 to 09/27/2015 All other terms and conditions shall remain unchanged.				

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES 1 31	
2. AMENDMENT/MODIFICATION NO. 002		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY (FOR U.S. MAIL ONLY) US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		CODE CP0D		7. ADMINISTERED BY (If other than Item 6) CP0D US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		CODE CP0D	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) R T I International Attn: DEBORAH ELLISON PO BOX 12194 (b)(4) RESEARCH TRIANGLE PARK NC 277092194				(x)			
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
CODE (b)(4) FACILITY CODE				x			
				10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-12-054 0006			
				10B. DATED (SEE ITEM 13) 10/31/2014			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE		A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
X		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
		D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) DUNS Number: (b)(4) Drinking Water Mapping Application for Protecting Source Waters (DWMAPS) Task Order 0006 The purpose of this modification is to 1) incorporate the correct recap sheet (with the appropriate cost and fee obligation breakdown) for this task order, see the correct Recap attached, and 2) to incorporate the revised PWS which captures assumptions and clarifications made during the solicitation phase, but erroneously left out of the award PWS, and approved by the contractor per the contractor's email dated 11/4/14. TOPO: Sherri Comerford Max Expire Date: 03/27/2018 LIST OF CHANGES: Continued ... Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Courtney Stallworth			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		1" 		16C. DATE SIGNED	
(Signature of person authorized to sign)				ELECTRONIC SIGNATURE		11/05/2014	

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED

EP-C-12-054/0006/002

PAGE 2 OF 25

NAME OF OFFEROR OR CONTRACTOR

R T I International

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Reason for Modification : Other Administrative Action</p> <p>Payment:</p> <p>RTP Finance Center US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive Durham NC 27711</p> <p>Period of Performance: 10/31/2014 to 09/27/2015</p> <p>All other terms and conditions shall remain unchanged.</p>				

EP-C-12-054
Task Order 006

Recapitulation Of Funding To Date By Contract Period
Base Period 10/31/2014 - 9/27/2015

FUNDING ACTION	ESTIMATED COST	FIXED FEE	COST PLUS FIXED FEE
BASE Period			
Initial Award	(b)(4)	(b)(4)	\$330,175.88
Mod 1 Admin			
Mod 2 Admin			
Total Funded			\$330,175.88
Total Per Contract			\$337,854.00
Balance Unfunded			\$7,678.12

**PERFORMANCE WORK STATEMENT
TSAWP Multiple-Award Contracts
EP-12-C-054
TASK ORDER 0006**

A. Title: Drinking Water Mapping Application for Protecting Source Waters (DWMAPS)

B. Period of Performance: One year after date of issuance

B. Task Order COR:

Sherri Comerford
Environmental Protection Specialist
Office of Ground Water and Drinking Water
Prevention Branch
202-564-4639
Comerford.Sherri@epa.gov

Alternate Task Order COR:

Roger Howard
Environmental Protection Specialist
Office of Ground Water and Drinking Water
Prevention Branch
202-564-9907
Howard.Roger@epa.gov

I. Background

EPA, in partnership with AWWA and ASDWA, is launching a national call to states, drinking water utilities, and local communities to redouble their efforts to identify susceptible drinking water systems, revisit their source water assessments, and take steps to ensure that adequate preventative and response measures are in place.

In the June 6 Executive Order, "Report on Chemical Safety," the agency commits to engage with and encourage State Drinking Water Administrators and drinking water utilities to revisit and update source water assessments and determine whether adequate preparedness and preventive measures are in place for systems susceptible to contamination from chemical spills or other priority concerns.

One activity key to carrying out this commitment is enhancing and developing a public version of the Drinking Water Mapping Application for Protecting Source Waters (DWMAPS), formerly known as the Drinking Water GeoPlatform Application. This effort, in conjunction with a national dialogue to identify new opportunities in source water protection, will increase public health

protection and public confidence in the drinking water supply, by providing states and utilities with the tools and support they need to identify and most effectively manage the greatest risks to drinking water sources - both to prevent contaminants from entering a drinking water source and to adequately respond should a contamination event occur.

Purpose:

The purpose of this work assignment is to build on the existing DWMAPS to develop and maintain a comprehensive, nationwide mapping tool, with associated web services, that EPA and state agencies can use to protect drinking water sources from releases of potential sources of contamination. EPA and state agencies would use this tool to: (1) identify locations where potential sources of contamination pose risk to drinking water sources; (2) promote compliance with spill prevention and planning requirements in high-risk locations; (3) ensure that emergency response resources for accidental releases are readily available in high-risk locations; (4) provide functions that support updating of source water protection plans; and (5) promote integration of SDWA activities with other environmental programs at the EPA, state, and local levels.

This project continues work initiated under Task Order 3, Drinking Water GeoPlatform Application. It also develops a secure version of DWMAPS accessible to state and utilities via the Central Data Exchange (CDX); incorporates new functions and data layers to all three versions of DWMAPS; develops a source water protection reporting tool; supports training sessions for critical DWMAPS users; and supports the development of user guides for the three versions of DWMAPS.

II. Tasks

Task 1: Core Support and Maintenance

- 1.1 Prior to the beginning of work on this task, the Task Order Contract Officer's Representative (TOCOR) shall schedule a kick off meeting with the contractor to discuss the tasks within this task order, the goals of the task order, any questions or concerns regarding the existing QAPP, and a review of the schedule of milestones and expectations.
- 1.2 At the kick off meeting at the beginning of the tasks, the agenda shall include an overview of the existing QAPP, and address any concerns from EPA's QAO or from the contractor. Issues raised will be acknowledged by EPA's QAO, and the contractor will be allowed to incur billable costs to address the issues or EPA will dismiss the concern. If the issue needs to be addressed, an addendum to the existing QAPP will be written.
- 1.3 EPA has determined that an existing QAPP will be used for the performance of this task order. See Section III for additional information.
- 1.4 The contractor shall develop, update and/or revise, as directed via written technical direction by the TOCOR, the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies or other needs, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking

and Environmental ResultS (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR. Copies of the security plan shall be provided to the TOCOR, OGWDW Security Officer and the WATERS team leader as necessary. Upon direction from the TOCOR, the contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).

- 1.5 The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the DWMAPS Web site during normal business hours. Any user or the EPA TOCOR may notify the contractor that either Web site is not available.
- 1.6 The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable. Updates to the DWMAPS are needed because changes occur regularly in the ArcGIS application software, GIS platforms, server locations, Oracle database facility, and the WATERS version control structure.
- 1.7 The contractor shall be responsible for managing and maintaining necessary operations for DWMAPS.
- 1.8 The contractor shall monitor the use of DWMAPS and identify all issues with the software. The contractor shall report to EPA all issues with DWMAPS and assist EPA in prioritizing their resolution, as well as operate, maintain and provide user support as directed.
- 1.9 The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.
- 1.10 The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.
- 1.11 The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort. No information to be included at the site shall be considered sensitive information or data.
- 1.12 The contractor respond to help requests as directed by the TOCOR. EPA will set up an email address for DWMAPS help requests and will send to the contractor only those items for which the EPA DWMAPS team needs support.

Task 2: Basic Data Use

2.1 The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment. Maintaining the current datasets shall allow the DWMAPS application to be accessed for continuing projects and analyses.

2.2 The contractor shall update all major GIS layers that are included in Attachment A: Data Updates Required to Enhance the GIS Capabilities of the DWMAPS. Priority coverages and data for these updates are the SDWIS/Fed drinking water data and the layers based on this data (e.g. Source Protection Areas (SPAs); HUC12 layers used in MyWATERS Mapper, etc.). The version of SDWIS/Fed used for all updates shall be the latest complete quarter or its derivative as determined by EPA. The following datasets and data layers shall be updated.

- 2.2.1 A SDWIS geospatial dataset including all source facilities georeferenced to the most recent NHDPlus¹.
- 2.2.2 Reach code indexing for all SDWIS/Fed source facilities (surface water only).
- 2.2.3 Updating and re-calculating the source protection areas (SPAs) based on the existing and any new source facilities that are not included in the current SPA data layer (3rd Quarter 2010). The contractor shall use the NHDPlus (latest acceptable version) coverages to refine the SPAs as needed
 - 2.2.3.1 Create other source protection areas (SPAs) based on source water assessment delineations provided by states.
- 2.2.4 Updating the drinking water density maps using the HUC12 watersheds based on NHDPlus (latest accepted version), preparing them for use in various formats or applications (e.g. MyWATERS Mapper, downloadable data sets, web services, etc.) and making them available for public distribution as determined by EPA.
- 2.2.5 Update all metadata connected to the data updates in subtasks 2.2.1 through 2.2.4.
- 2.2.6 Other data sets contained in the DWMAPS to be considered for update or refresh as funding allows are the following: (version date in parentheses)
 - 2.2.6.1 NPDES (Summer 2007)
 - 2.2.6.2 CSO (August 2004)
 - 2.2.6.3 CERCLA (July 2007)
 - 2.2.6.4 RCRA (July 2007)
 - 2.2.6.5 UIC ((1990's)
 - 2.2.6.6 UST (HIFLD - HSIP Gold 2007 dataset of gas stations²)

¹ NHDPlus is an integrated suite of application-ready geospatial data sets that incorporate many of the best features of the National Hydrography Dataset (NHD), the National Elevation dataset (NED), and the Watershed Boundary Dataset (WBD). NHDPlus Version 1 (NHDPlusV1) was released in 2006. NHDPlus Version 2 (NHDPlusV2) began its public debut in June 2012.

² HIFLD – Homeland Infrastructure Foundation-Level Database (HIFLD) Working Group is a coalition of federal, state, and local government organizations, and supporting private industry partners who are involved with geospatial issues related to Homeland Defense, Homeland Security, civil support or emergency preparedness and response. The HIFLD website is found at <https://www.hifldwg.org>. HIFLD produces the Homeland Security Infrastructure Program (HSIP) dataset called the HSIP Gold dataset. The HSIP Gold 2012 dataset contains 5 DVDs: DVD1:

- 2.2.6.7 Dry Cleaners (ESRI ArcGIS 9.3 Business Analyst January 2008)
- 2.2.6.8 AFO (HSIP 2007)
- 2.2.6.9 SSA (January 2009)
- 2.2.7 Karst (1984)
- 2.2.7.1 DOD (December 2005)
- 2.2.7.2 Tribal (3rd Quarter 2006)
- 2.2.7.3 Ground Water Regions (1984)
- 2.2.7.4 Principal Aquifers ((October 2003)
- 2.2.7.5 Surficial Geology (1979)
- 2.2.7.6 FEMA Q3 flood plain maps (2003?)
- 2.2.7.7 NOAA Coastal Counties (Date not noted)
- 2.2.7.8 Pipeline and Bridge/Rail Hazardous Transportation Layers
- 2.2.7.9 Other layers as identified by EPA

2.3 The contractor shall *support EPA's efforts to* collect, evaluate and develop new datasets to be used to support drinking water, source water and underground injection program analyses. The contractor shall use its expertise to develop those datasets that are required, used or needed to support analyses under the GeoPlatform, the SDWIS/Fed Data Warehouse (SFDW), SDWIS/Fed Reporting Services (SFRS), Nutrient Reduction Framework, NPDAT, MyWATERS Mapper, Water Data Project, environmental justice projects, and other agency initiatives.

Task 3: DWMAPS Enhancements and Design

Note: for new data layers referenced below, EPA will conduct upfront data discovery and data vetting.

3.1 The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports³] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.

3.1.1 Continue updating DWMAPS v. 1.3 per technical direction submitted under Task Order 3.

3.2 The contractor shall design and develop new geospatial functions and queries determined by EPA that are directly related to the outlined tasks in 3.1 above. All work shall take

Infrastructure Data; DVD 2: Infrastructure Data(Cont.), National Flood, Hazard Layer; DVD 3: LandScanTM. LandScan USATM; DVD 4: Navteq®, Road Networks, Points of Interest; DVD 5: Navteq®, Geocoding Locators (ArcGIS 9.3 & ArcGIS 10.0)

³ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

advantage of the NHDPlus velocity and flow variables available for the catchments that are elevation-derived sets of polygons to represent contributing areas to stream reaches. These catchment areas should make possible more complex watershed-based analyses that the contractor shall use to recommend cross-program benefits to use within EPA and with other Federal agencies. Examples of the types of geospatial analyses and queries to be investigated are the following:

- 3.2.1 Using the TMDL layer as an active layer with queries [preparation of impaired waters and TMDL data from ATTAINS database potentially needed].
- 3.2.2 Determining results from queries that can be displayed on a nationwide basis by integrating new query building techniques using SPAs and generating queries and reports on the numbers, types, names and locations of contaminant sources.
- 3.2.3 Integrating layers for inundation areas, floodplains and coastal counties for use in emergency response actions using queries [Designing queries for coastal counties or “SLOSH” (sea level rise and flooding purposes) displays, and FEMA flood plain data (Q3 version)].
- 3.2.4 Designing and enhancing reporting functions and printing query results directly from GIS viewers [e.g. printing and sharing of .pdf file of map results; downloading GIS files after query complete and saving project analysis].
- 3.2.5 Using other data layers for drinking water, source water and UIC for designing geospatial analytical functions or GIS representations and queries. These layers to be considered for example are: climate change; aquifer exemption; sole source aquifer; hydraulic fracturing, and geologic sequestration. *For the base year*, contractor shall prioritize DWMAPS interaction with Clean Water Act databases and models that support the business questions in ATTACHMENT B (e.g., ATTAINS, ICIS, and NSD2). The contractor shall coordinate with EPA’s Water Quality Portal, which includes data from EPA STorage and RETrieval Data Warehouse (STORET) as well as USGS National Water Information System (NWIS) and USDA Sustaining the Earth’s Watersheds: Agricultural Research Database (STEWARDS).
- 3.2.6 The contractor shall develop a web services that will allow users of all versions of DWMAPS (EPA, states, utilities, other federal agencies, and public) to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications. Limitations to sensitive data access for web services for each user group will be equal to limitations for the respective full GIS programs designed for those user groups. (See Task 4).
- 3.2.7 Create database link between FRS database and SFDW database to enable automatic

quarterly updates.

Task 4: Develop Secure Access for States, and Utilities, other federal agencies, and the public.

4.1 The contractor shall develop secure access to DWMAPS for states, utilities, and other federal agencies by linking to the Central Data Exchange (CDX) or other appropriate platform as determined by EPA's National Computer Center. By logging on securely to DWMAPS, states and utilities will be able to see their SDWIS Fed location data in DWMAPS (i.e. they will not need to click on the map or enter a latitude/longitude) and have their SDWIS Fed location used automatically by DWMAPS upstream potential risk identification functions. Additionally, states and utilities will be able to send a request from DWMAPS to the Primacy Agency data steward to correct location data in the primacy agency data system (with corrected data sent from the primacy agency to SDWIS Fed during the subsequent quarterly reporting). Also, the Contractor shall provide capabilities to incorporate state specific datasets (e.g. SPAs) – some state specific datasets may be sensitive and therefore require ~~CDX~~ controls so that only authorized users in the state can access the data. Employees from federal agencies with secure login rights will be able to access nationwide data.

4.2 The Contractor shall develop access to DWMAPS for the public. This version will not include sensitive data, including drinking water intake locations or source water protection areas, or other sensitive data as defined by EPA Office of Water sensitive information policy.

Task 5: Develop DWMAPS Source Water Protection Report-Generating Tool

Many informational and technical barriers prevent utilities, state drinking water professionals, and other stakeholders from updating Source Water Assessments. The contractor shall develop a DWMAPS report writer (hereafter, the "Writer"), designed to make it easier to document potential sources of contamination and water quality information that may affect source waters. In addition to synthesizing and translating data from national databases, the Writer will allow users to "write in" information from local records, improving the report's relevance to communities and practitioners in the field. [See ATTACHMENT C – Sample DWMAPS Source Water Protection Report]

This Writer will offer templates for writing source water assessment updates specific to the priorities of utilities, states and public users. The Writer will use DWMAPS metadata to produce charts and tables, and provide users with editing options and text templates to customize each report and supplement data with the author's description. The Writer will also allow users to extract data into an Excel spreadsheet to import into their own programs. User identity will determine report interface. The Writer interface will have up to three (3) versions, each tailored to the needs of specific user groups. The interface will vary depending on whether users access DWMAPS via

- 5.1 State CDX or other secure log-in
- 5.2 Utility CDX or other secure log-in
- 5.3 Public DWMAPS

State and utility versions are the priorities for the base year. Differences between Writer versions will be most visible in the level of informational detail; technical/non-technical language; and data options. For example, the State Writer will incorporate more regulatory language and include analyses cross-walking Clean Water Act and Safe Drinking Water Act areas of concern.

Task 6: Technical Support

6.1 The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.

6.2 The contractor shall, as required at times, evaluate and provide technical support for specific GIS projects from OGWDW or outside the office, such as recommendations on project objectives, data use and sources, and project initiation. The contractor support for projects to other EPA customers outside OGWDW shall be assigned dependent on the level of effort in the contract and as directed via written technical direction by the TOCOR.

6.3 The contractor shall integrate data for collaborative projects across EPA offices. The contractor shall investigate and design new queries for the integration of data (e.g. OUST, OSWER, OWM) and other non- EPA agency data (e.g. Forest Service) into geospatial analytical capabilities to be used in the GeoPlatform, NextGen developments, SFDW or in ArcGIS desktop applications. The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows. The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.

6.4 The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.

6.5 The contractor shall provide technical support to users of DWMAPS query function, web services, and source water protection reporting tool.

6.5.1 The contractor shall provide support to users who email EPA with questions about use of DWMAPS, at the direction of the TOCOR. EPA will establish an agency email box for user support and field questions. When EPA needs assistance answering questions, the contractor shall assist the agency in formulating a response.

6.5.2 The contractor shall provide online user guides to document the use of the federal, public and state/CDX versions of DWMAPS, web services, and source water assessment report-generating tool, updating the guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.

Task 7: Support Meetings and Training

- 7.1 The contractor shall, as directed via written technical direction by the TOCOR, prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing. The contractor shall also prepare briefing materials, information handouts, and presentations as needed for EPA on site contract monitoring meetings at the contractor's place of business and at EPA HQ.
- 7.2 The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.
- 7.3 The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.
- 7.4 The contractor shall provide technical support for and/or conduct training sessions for DWMAPS users that describe the data in the application, the use of queries and web services, the interpretation of results from using the DWMAPS, and use of the source water assessment generating tool described in Task 5, as the direction of the TOCOR. The trainings incorporating the report generating tool will be conducted at a later phase of the work assignment. EPA will develop agendas, materials, and segments of the training sessions that put DWMAPS tools into the context of Source Water Protection information and other tools, including the Source Water Collaborative's "How-to-Collaborate Toolkit," and develop recordings/webcasts for sustainable transfer of information. The contractor shall provide technical expertise and collaborate with EPA in these preparatory activities. Contractor participation will be via webinar, unless directed by the TOCOR (See Section G: Anticipated Travel).
- 7.4.1 EPA, State and utility users of the public version, prior to its release to the public (provide technical support).
- 7.4.2 Watershed groups and source water collaborative member users of the public version (provide technical support).
- 7.4.3 State and utility users of the CDX version (conduct training).
- 7.4.4 State and utility users of the CDX version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the

TOCOR).

- 7.4.5 Watershed groups and source water collaborative users of the public version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).

7.5 The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.

7.6 The contractor shall develop training materials to parallel the training above in 7.4 as directed via written technical direction by the TOCOR.

7.7 The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.

III. Quality Assurance (QA)

- A. EPA has determined that an existing QAPP will be used for the performance of this work. The existing QAPP is included in this PWS as an attachment. The contractor shall adhere to the existing QAPP in performing the scope of requested services in this task order.

The contractor shall review the existing QAPP, and verify that it is still appropriate for use. If revisions are needed, the contractor shall include these in the Cost and Technical Proposals. The contractor shall notify the EPA TOCOR at any time during the task order if changes to the QAPP are warranted. If the contractor determines that revisions to the QAPP are warranted, work on this task order cannot proceed until the contractor receives notification of QAPP approval from the POCOR via e-mail.

- B. The contractor shall comply with the contract-level QA guidance in Section 2.6 Quality Assurance (QA) Requirements. The contractor shall comply with the QA guidance for GIS data (QA/G-5G) at: <http://www.epa.gov/QUALITY/qs-docs/g5g-final.pdf>.
- C. Specific QA and data standards sections applicable to tasks 2, 3, 4, 5, and 6 in this task order.
- D. Progress on reviewing proposed existing data and new data sets shall be covered in the monthly progress reports. The monthly progress report shall indicate in a separate QA section, whether significant QA issues have been identified and how the contractor is resolving them.
- E. The contractor shall provide separate spending breakdowns in the monthly progress reports for work pertaining to 1). Operation and Maintenance; 2). DWMAPS enhancements; and 3) Data updates; 4) Technical Support; and 5) Training.
- F. This task order does not require a separate QAPP per Section 2.6.3 QUALITY ASSURANCE PROJECT PLAN (QAPP).
- G. In addition, the workplan shall include the requirement that all electronic and information

technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. Please see the Voluntary Product Accessibility Template (VPAT) at <http://www.itic.org/dotAsset/5644ecd2-5024-417f-bc23-a52650f47ef8.doc>.

IV. Schedule of Benchmarks & Deliverables

Travel in this task order shall be limited to a kickoff meeting and occasional onsite meetings with EPA in Washington, DC per approval by the TOCOR. The travel for any conference or training participation shall be approved by the TOCOR before the travel is scheduled.

When the Task Order reaches 30 calendar days prior to the end of the Period of Performance in a given period, the contractor shall make a determination that the deliverables, milestones, benchmarks, and any outstanding technical direction from the TOCOR, will be satisfactorily completed in the form requested in the PWS by the end of the Period of Performance and for the remaining funding that is available.

If within 30 days prior to the end of the period of performance in a given period, the contractor determines one or more of the above-referenced items will not be able to be completed in the requested form within the period of performance and with the available funding, the contractor shall notify the TOCOR and the CO immediately. Within 5 business days of said notification, the TOCOR in coordination with the CO will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR all interim draft deliverables, interim work products, and any working files in an electronic format which is supported by EPA, for eventual continuation of the project after the end date of the Task Order.

See attached Schedule of Benchmarks & Deliverables below:

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Base Year: September 2014-September 2015		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.
1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable
1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies or other needs, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	This activity is expected to be completed within the three months of the contract due to the database's name change and an expected server migration within EPA, within 10 business days after receipt of written technical direction of the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	Within 10 business days after receipt of written technical direction of the TOCOR
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As needed and directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports	As needed and directed by the TOCOR.

	and operating the DWMAPS application or components of the system.	
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	This activity may be needed during the second through fourth quarters of the first year of the TO, as directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As needed and directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment	Ongoing.
2	The contractor shall update GIS layers	This activity is expected to begin during the first quarter of the first year of the TO, as directed by the TOCOR.
2	The contractor shall collect, evaluate and develop new datasets.	This activity is expected to begin during the first quarter of the first year of the TO, as directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁴] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	This activity is expected to begin during the first quarter of the first year of the TO, as directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries and continue updating DWMAPS v. 1.3 per technical direction submitted under Task Order 3	This activity is expected to begin during the first quarter of the first year of the TO and continue as needed throughout the duration of the year as EPA identifies new data layers needed within the platform, as directed by the TOCOR.
3	The contractor shall develop a web services that will allow users of all versions of DWMAPS (EPA, states, utilities, other federal agencies, and public) to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications. Limitations to sensitive data access for web services for each user group will be equal to limitations for the respective full GIS programs designed for those user groups. (See Task 4).	This activity is expected to begin during the first quarter of the first year of the TO, and continue as needed through the duration of the year, as EPA identifies new query functions needed based on user feedback. Web service development is expected within 15 business days after receipt of written technical direction from TOCOR

⁴ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
4	Develop Secure Access for States, and Utilities, other Federal Agencies, and the Public.	Developing access for states and utilities is expected to begin within the first quarter of the first year of the TO, and for other federal agencies and the public, during the second quarter. Deliverables are expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX or Other Secure Login	This activity is expected to begin during the second quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX or Other Secure Login	This activity is expected to begin during the second quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	This activity is expected to begin during the second quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR. 15 business days after receipt of written technical direction from TOCOR.
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As needed and as directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As needed and as directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As needed and as directed by the TOCOR
6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.

6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR. As directed by the TOCOR
6	The contractor shall provide online user guides to document the use of the federal, public and state/CDX versions of DWMAPS, web services, and source water assessment report-generating tool, updating the guides as needed as new versions of DWMAPS are deployed, at the direction of the TOCOR.	This activity is expected to begin within the first quarter of the first year of the TO for the federal and state/CDX versions and web services; the second and third quarters for the public version and report-generating tool, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	The contractor shall provide technical support for and/or conduct training sessions for DWMAPS users that describe the data in the application, the use of queries and web services, the interpretation of results from using the DWMAPS, and use of the source water assessment generating tool described in Task 5, as the direction of the TOCOR.	This activity is expected to begin within the second and third quarters of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	EPA, State and utility users of the public version, prior to its release to the public (provide technical support).	This activity is expected to take place during the second quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of

		written technical direction from TOCOR.
7	Watershed groups and source water collaborative member users of the public version (provide technical support).	This activity is expected to begin within the second and third quarters of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	State and utility users of the CDX version (conduct training).	This activity is expected to begin during the second quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	State and utility users of the CDX version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).	This activity is expected to begin within the third quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	Watershed groups and source water collaborative users of the CDX version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).	This activity is expected to begin within the third quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	Upon delivery of the EPA, State/CDX and public versions of DWMAPS, the web service, and the reporting generating tool, as directed by the TOCOR.
7	The contractor shall develop training materials to parallel the training above in 7.4 as directed via written technical direction by the TOCOR.	This activity is expected to begin within the second and third quarters of the first year of the TO, with deliverables expected within 15 business days after receipt of written technical direction from TOCOR.
7	The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.	As needed and as directed by the TOCOR

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Option Year I: September 2015-September 2016		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.

1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable
1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	As directed by the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	As directed by the TOCOR.
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.	As directed by the TOCOR.
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	As directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the	As directed by the TOCOR.

	data is used efficiently in the RTP production environment	
2	The contractor shall update GIS layers	As directed by the TOCOR.
2	The contractor shall collect, evaluate and develop new datasets.	As directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁵] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	As directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries	As directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	15 business days after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	10 business days after receipt of written technical direction from TOCOR
4	Develop Secure Access for States and Utilities	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	15 business days after receipt of written technical direction from TOCOR
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As directed by the TOCOR

⁵ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	As directed by the TOCOR
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	As directed by the TOCOR
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	As directed by the TOCOR
6	The contractor update online user guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.	As directed by the TOCOR
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	As directed by the TOCOR
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	As directed by the TOCOR
7	The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.	As directed by the TOCOR

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Option Year II: September 2016-September 2017		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.

1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable
1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	As directed by the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	As directed by the TOCOR.
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.	As directed by the TOCOR.
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	As directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the	As directed by the TOCOR.

	data is used efficiently in the RTP production environment	
2	The contractor shall update GIS layers	As directed by the TOCOR.
2	The contractor shall collect, evaluate and develop new datasets.	As directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁶] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	As directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries	As directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	15 business days after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	10 business days after receipt of written technical direction from TOCOR
4	Develop Secure Access for States and Utilities	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	15 business days after receipt of written technical direction from TOCOR
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As directed by the TOCOR

⁶ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	As directed by the TOCOR
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	As directed by the TOCOR
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	As directed by the TOCOR
6	The contractor update online user guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.	As directed by the TOCOR
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	As directed by the TOCOR
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	As directed by the TOCOR
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SCHEDULE OF BENCHMARKS & DELIVERABLES		
Option Year III: September 2017-March 2018		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.

1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable
1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	As directed by the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	As directed by the TOCOR.
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.	As directed by the TOCOR.
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	As directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the	As directed by the TOCOR.

	data is used efficiently in the RTP production environment	
2	The contractor shall update GIS layers	As directed by the TOCOR.
2	The contractor shall collect, evaluate and develop new datasets.	As directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁷] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	As directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries	As directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	15 business days after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	10 business days after receipt of written technical direction from TOCOR
4	Develop Secure Access for States and Utilities	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	15 business days after receipt of written technical direction from TOCOR
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As directed by the TOCOR

⁷ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	As directed by the TOCOR
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	As directed by the TOCOR
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	As directed by the TOCOR
6	The contractor update online user guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.	As directed by the TOCOR
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	As directed by the TOCOR
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	As directed by the TOCOR

When the Task Order reaches 30 calendar days prior to the end of the Period of Performance, the contractor shall make a determination that the deliverables, milestones, benchmarks, and any outstanding technical direction from the TOCOR, will be satisfactorily completed in the form requested in the PWS by the end of the Period of Performance and for the remaining funding that is available.

If the contractor determines one or more of the above-referenced items will not be able to be completed in the requested form within the period of performance and with the available funding, the contractor shall notify the TOCOR and the CO immediately. Within 5 business days of said notification, the TOCOR in coordination with the CO will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR all interim draft deliverables,

interim work products, and any working files in an electronic format which is supported by EPA, for eventual continuation of the project after the end date of the Task Order.

VII. Deliverables

All deliverables (draft and final) to EPA shall be furnished in an electronic format that EPA can support (see TSAWP Contract PWS Section 4.0 Deliverables). All final deliverables shall be prepared according to EPA publication guidelines and shall be compliant with Section 508 of the Americans with Disabilities Act.

All draft and final deliverables from the contractor under this PWS are potentially subject to Freedom of Information Act requests.

All **submittals** to EPA shall be formatted as described below:

- Any written reports, summaries or analysis documents shall be in electronic Microsoft Word®.
- Any and all spreadsheets, raw data, coding and modeling work (including all model runs with essential data to replicate model runs) shall be in electronic Microsoft Excel® or XML formats.

Appropriate electronic format that is supported by EPA and printing of all GIS data layers, maps, photos, bench sheets and other written material not easily printed or saved in the above formats will be discussed and a format agreed upon with the EPA TOPO prior to submittal by the contractor.

G. Anticipated Travel

All travel under this Task Order shall be in compliance with contract requirements and only according to specific written Technical Direction from the TOPO. (See contract clause H-17). The following travel is anticipated under the following Tasks:

Task 7.1 – Quarterly travel to EPA Headquarters in Washington, DC, for one-day in-person meetings are anticipated. The vast majority of the interactions being conducted through conference calls. The number of contractor personnel required for each trip will be provided to the contractor through written technical direction from the TOPO – in general, one (1) or (2) contractor personnel will be required.

Task 7.4 – Provision of technical support for training sessions for DWMAPS users shall be achieved via webinar wherever possible. At the direction of the TOCOR, one contractor personnel may be anticipated to travel to conduct in-person training sessions with state and utility users of the CDX version of DWMAPS and watershed group and source water collaborative users of the public version (7.4.3, 7.4.4 and 7.4.5), contractor may be expected to travel for one day to conduct in-person training sessions, at locations to be determined as directed by the TOCOR.

Task 7.7. The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR. One (1) contractor personnel would be required to travel for one (1) day of a conference, at a location to be determined as directed by the TOCOR.

H. Contractor Identification

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the EPA TOPO.

I. Meeting guidelines and limitations:

Travel is not anticipated to be routine under this contract. EPA expects that the majority of the dollars to go toward the development of the DWMAPS GIS platform. EPA projects that none of the individual meetings identified in these tasks will exceed a total cost of \$2,000 with total travel not to exceed \$10,000 in any performance period. The contractor shall immediately notify the EPA Contracting Officer, PO and TOPO of any anticipated individual event which meets the definition of a "conference," with total net expenditures anticipated to be greater than \$20,000.

A **"conference" or "conference-related activity"** is an internal or external meeting, retreat, seminar, symposium or event that involves expenses from the following categories:

attendee travel paid for by the EPA; training activities; or EPA hosted or co-hosted, sponsored or co-sponsored events incurring speaker fees, food and refreshment expenses, non-federal facility expenses, audio visual expenses and/or contract related conference expenses. **"Conference expenses"** are all direct and indirect conference costs paid by the government, whether paid directly by agencies or reimbursed by agencies to travelers or others associated with the conference, but do not include funds paid under federal grants to grantees. Conference expenses include any associated authorized travel and per diem expenses, hire of rooms for official business, audiovisual use, light refreshments, registration fees, ground transportation, and other expenses as defined by the Federal Travel Regulation. All outlays for conference preparation and planning should be included. The FTR provides some examples of direct and indirect conference costs included within conference expenses. After notifying EPA of the potential to reach this threshold, the contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

K. VALIDATION OF SECTION 508 COMPLIANCE OF TASK ORDER DELIVERABLES

The Contractor shall support the TOPO in conducting a "Final Deliverable Validation" to ensure compliance with Section 508 and the Federal Acquisition Regulations (FAR) related to "electronic and information technology (EIT) deliverables". The Contractor shall furnish certification, in writing, to the TOPO that the Contractor has complied with EPAAR Clause 1552.211-79 "Compliance with EPA Policies for Information Resources Management", including the requirement that all electronic and information technology (EIT) deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>.

V. Attachments

- A. Data Updates Required to Enhance the GIS Capabilities of the DWMAPS
- B. DWMAPS Clean Water Act Business Questions
- C. Sample DWMAPS Source Water Protection Report
- D. Quality Assurance Project Plan (QAPP) Task Order 020 Drinking Water Mapping

Application (DWMA) Support Prepared by Environmental Health and Economics
Division RTI International, Research Triangle Park, NC 27709 EPA Contract Number
EP-C-08-003, 31 March 2010 (used in 2011 and 2012 task orders).

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1 CONTRACT ID CODE		PAGE OF PAGES 1 2		
2 AMENDMENT/MODIFICATION NO 003		3 EFFECTIVE DATE See Block 16C		4 REQUISITION/PURCHASE REQ NO. PR-OW-15-00507		5. PROJECT NO. (if applicable)	
6 ISSUED BY (FOR U.S. MAIL ONLY) US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		CODE CPOD		7 ADMINISTERED BY (if other than Item 6) CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		CODE CPOD	
8 NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) R T I International Attn: DEBORAH ELLISON PO BOX 12194 (b)(4) RESEARCH TRIANGLE PARK NC 277092194				(x)			9A AMENDMENT OF SOLICITATION NO.
							9B DATED (SEE ITEM 11)
				x			10A MODIFICATION OF CONTRACT/ORDER NO. EP-C-12-054 0006
							10B DATED (SEE ITEM 13) 10/31/2014
CODE (b)(4)		FACILITY CODE					

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12 ACCOUNTING AND APPROPRIATION DATA (if required)
See Schedule
Net Increase: \$24,682.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)
X	Unilateral: EPAAR 1552.217-71 & FAR 52.232-22

E. IMPORTANT: Contractor ☒ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: (b)(4)

The purpose of this modification is to exercise Option Period I with \$24,682, of incremental funding. Additionally, the Contracting Officer is changed to Tammy Adams.

TOCOR: Sherri Comerford Max Expire Date: 03/27/2018

LIST OF CHANGES:

Reason for Modification: Exercise an Option

New Total Amount for this Version: \$78,662.00

Obligated Amount for this Modification: \$24,682.00

CHANGES FOR LINE ITEM NUMBER: 2

Incremental Funded Amount changed from \$0.00 to \$24,682.00

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A NAME AND TITLE OF SIGNER (Type or print)		16A NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Noelle Mills	
15B CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C DATE SIGNED	16B UNITED STATES OF AMERICA Noelle Mills (Signature of Contracting Officer)	16C DATE SIGNED 08/05/2015

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-12-054/0006/003	2	2

NAME OF OFFEROR OR CONTRACTOR

R T i International

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Exercised option</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 15-16-B-40EJ-201B53X26-2505-1540DWE054-001 Beginning Fiscal Year 15 Ending Fiscal Year 16 Fund (Appropriation) B Budget Organization 40EJ Program (PRC) 201B53X26 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1540DWE054-001 Amount: \$24,682.00</p> <p>Delivery Location Code: OW-OWOW-AWPD-NPSB AWPD-NPSB US EPA-OW-OWOW-AWPD-NPSB 1200 PENNSYLVANIA AVE., NW MC-4503-T WASHINGTON DC 20460</p> <p>Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive Durham NC 27711</p> <p>FOB: Destination Period of Performance: 10/31/2014 to 09/27/2016 All other terms and conditions shall remain unchanged.</p>				

The following Task Order clauses are revised for Option Period I as follows:

Local Clauses 1552.211-73 LEVEL OF EFFORT - COST REIMBURSEMENT TERM CONTRACT (APR 1984) DEVIATION (AUG 1985)

(a) The Contractor shall perform all work and provide all required reports within the level of effort specified below. The Government will order **685** direct labor hours for the Option Period I which represents the Government's best estimate of the level of effort required to fulfill these requirements.

(b) Direct labor includes personnel such as engineers, scientists, draftsmen, technicians, statisticians, and programmers and not support personnel such as company management, typists, and key punch operators even though such support personnel are normally treated as direct labor by the Contractor. The level of effort specified in paragraph (a) includes Contractor, subcontractor, and consultant labor hours.

(c) Under any circumstances, if the Government orders or the Contractor provides less than 90 percent of the level of effort specified for the base period or any optional period exercised, an equitable downward adjustment of the fixed fee, if any, for that period will be made. The Government may require the Contractor to provide additional effort up to 110 percent of the level of effort for any period until the estimated cost for that period has been reached. However, this additional effort shall not result in any increase in the fixed fee, if any. If this is a cost-plus-incentive-fee (CPIF) contract, the term "fee" in this paragraph means "base fee and incentive fee." If this is a cost-plus-award-fee (CPAF) contract, the term "fee" in this paragraph means "base fee and award fee."

(d) If the level of effort specified to be ordered during a given base or option period is not ordered during that period, that level of effort may not be accumulated and ordered during a subsequent period.

(e) These terms and conditions do not supersede the requirements of either the "Limitation of Cost" or "Limitation of Funds" clauses.

EPA-B-16-102 ESTIMATED COST AND FIXED FEE

(a) The estimated cost of this task order is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is \$78,662.

EPA-B-32-101 LIMITATION OF FUNDS NOTICE

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of fixed fee. The amount allotted for costs is estimated to cover the contractor's performance through 1/20/2016.

(b) When the task order is fully funded as specified in the Estimated Cost and Fixed Fee Clause (EP 52.216-190), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds:

<u>FUNDING ACTION</u>	<u>ESTIMATED COST</u>	<u>FIXED FEE</u>	<u>TOTAL COST PLUS FIXED FEE</u>
Modification 3	(b)(4)	(b)(4)	\$ 24,682.00
Total Funded			\$ 24,682.00
Total Per TO			\$ 78,662.00
Balance Unfunded			\$ 53,980.00

EPA-F-12-101 PERIOD OF PERFORMANCE

The period of performance of this task order shall be from 10/31/2014 through 9/27/2016 inclusive of all required reports.

EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Contracting Officials responsible for administering this task order are as follows:

Tammy Adams
26 West Martin Luther King Drive
Mail Code: NWD1
Cincinnati, OH 45268
Phone: 513-487-2030
adam.tammy@epa.gov

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGES 1 6									
2. AMENDMENT/MODIFICATION NO. 004		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. PR-CPOD-15-00196		5. PROJECT NO. (If applicable)								
6. ISSUED BY (FOR U.S. MAIL ONLY) US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		CODE CPOD		7. ADMINISTERED BY (If other than Item 6) CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		CODE CPOD								
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) R T I International Attn: DEBORAH ELLISON PO BOX 12194 (b)(4) RESEARCH TRIANGLE PARK NC 277092194				(x) 9A. AMENDMENT OF SOLICITATION NO.										
				9B. DATED (SEE ITEM 11)										
				x 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-12-054 0006										
CODE (b)(4)				10B. DATED (SEE ITEM 13) 10/31/2014										
FACILITY CODE														
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS														
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.														
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule														
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td style="text-align: center;">x</td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-2 Changes - Cost Reimbursement, EPAAR 1552.217-71, Option to Extend the Term, EPA B-32-101, Li</td> </tr> <tr> <td></td> <td>D. OTHER (Specify type of modification and authority)</td> </tr> </table>							CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).	x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-2 Changes - Cost Reimbursement, EPAAR 1552.217-71, Option to Extend the Term, EPA B-32-101, Li		D. OTHER (Specify type of modification and authority)
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.													
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).													
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-2 Changes - Cost Reimbursement, EPAAR 1552.217-71, Option to Extend the Term, EPA B-32-101, Li													
	D. OTHER (Specify type of modification and authority)													
E. IMPORTANT: Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.														
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) DUNS Number: (b)(4) The purpose of this modification is to: 1. De-scope the Base Period by reducing the Level of Effort (LOE) by 1,080 hours. The new LOE is now 1,917 hours for the Base Period, 2. Reduce the Cost and Fee ceiling for the Base Period. See the attached Recapitulation of Funding, 3. Increase the Option Period I LOE by 1,080 hour to complete work within the scope of the PWS. The new LOW is now 1,765 hours for Option Period I, 4. Increase the Cost and Fee ceiling for Option Period I. See the attached Recapitulation of Funding, and 5. Shift funding in the amount of \$98,097 from the Base Period to Option Period I. Continued ...														
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.														
15A. NAME AND TITLE OF SIGNER (Type or print) Donna Cooper, Senior Contracting Officer				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Tammy Adams										
15B. CONTRACTOR/OFFEROR <i>Donna Cooper</i> (Signature of person authorized to sign)		15C. DATE SIGNED 09-29-15		16B. UNITED STATES OF AMERICA <i>Tammy Adams</i> (Signature of Contracting Officer)		16C. DATE SIGNED 9/29/15								

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED

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NAME OF OFFEROR OR CONTRACTOR

R T I International

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>TOCOR: Sherri Comerford Max Expire Date: 03/27/2018 LIST OF CHANGES:</p> <p>New Total Amount for this Version: \$408,838.00 New Total Amount for this Award: \$531,916.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 1</p> <p>Total Amount changed from \$337,854.00 to \$232,079.00 Obligated Amount for this modification: -\$98,096.88 Incremental Funded Amount changed from \$330,175.88 to \$232,079.00</p> <p>CHANGES FOR ACCOUNTING CODE: 14-15-B-40ES-201B53X26-2505-LSMMGBBQ-1440DWE054-00 1 Amount changed from \$273,000.00 to \$174,903.12 Percent changed from 80.80413 to 51.76885</p> <p>CHANGES FOR LINE ITEM NUMBER: 2</p> <p>Total Amount changed from \$78,662.00 to \$176,759.00 Obligated Amount for this modification: \$98,096.88 Incremental Funded Amount changed from \$24,682.00 to \$122,778.88</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 14-15-B-40ES-201B53X26-2505-LSMMGBBQ-1440DWE054-00 1 Beginning Fiscal Year 14 Ending Fiscal Year 15 Fund (Appropriation) B Budget Organization 40ES Program (PRC) 201B53X26 Budget (BOC) 2505 Job # (Site/Project) LSMMGBBQ Cost Organization DCN-Line ID 1440DWE054-001 Quantity: 0 Amount: \$98,096.88 Percent: 100 Subject To Funding: N Payment Address: Continued ...</p>				

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	EP-C-12-054/0006/004	3	6

NAME OF OFFEROR OR CONTRACTOR
R T I International

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>Section B: Clause, 1552.211-73, is incorporated as follows: 1552.211-73 LEVEL OF EFFORT - COST REIMBURSEMENT TERM CONTRACT (APR 1984) DEVIATION (AUG 1985)</p> <p>(a) The Contractor shall perform all work and provide all required reports within the level of effort specified below. The Government ordered 2,997 direct labor hours for the base period. The contractor provided 1,917 direct labor hours for the base period. The Government will order 1,765 direct labor hours for Option Period I which represents the Government's best estimate of the level of effort required to fulfill these requirements.</p> <p>(b) Direct labor includes personnel such as engineers, scientists, draftsmen, technicians, statisticians, and programmers and not support personnel such as company management, typists, and key punch operators even though such support personnel are normally treated as direct labor by the Contractor. The level of effort specified in paragraph (a) includes Contractor, subcontractor, and consultant labor hours.</p> <p>(c) Under any circumstances, if the Government orders or the Contractor provides less than 90 percent of the level of effort specified for the base period or any optional period exercised, an equitable downward adjustment of the fixed fee, if any, for that period will be made. The Government may require the Contractor to provide additional effort up to 110 percent of the level of effort for any period until the estimated cost for that period has been reached. However, this additional effort shall not result in any increase in the fixed fee, if any. If this is a cost-plus-incentive-fee (CPIF) contract, the term "fee" in this paragraph means "base fee and incentive fee." If this is a cost-plus-award-fee (CPAF) contract, the term "fee" in this paragraph means "base fee and award fee." Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED

EP-C-12-054/0006/004

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NAME OF OFFEROR OR CONTRACTOR

R T I International

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>(d) If the level of effort specified to be ordered during a given base or option period is not ordered during that period, that level of effort may not be accumulated and ordered during a subsequent period.</p> <p>(e) These terms and conditions do not supersede the requirements of either the "Limitation of Cost" or "Limitation of Funds" clauses.</p> <p>(End of clause)</p> <p>Section B: Clause, EPA-B-16-102, is revised as follows: EPA-B-16-102 ESTIMATED COST AND FIXED FEE</p> <p>Base Period</p> <p>(a) The estimated cost of this contract is (b)(4)</p> <p>(b) The fixed fee is (b)(4)</p> <p>(c) The total estimated cost and fixed fee is \$232,079.00.</p> <p>Option Period I</p> <p>(a) The estimated cost of this contract is (b)(4)</p> <p>(b) The fixed fee is (b)(4)</p> <p>(c) The total estimated cost and fixed fee is \$176,759.00.</p> <p>(End of clause)</p> <p>Section B: Clause, EPA-B-32-101, is revised as follows: EPA-B-32-101 LIMITATION OF FUNDS NOTICE</p> <p>Base Period</p> <p>(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of fixed fee. The amount allotted for costs is estimated to cover the contractor's performance through 09/27/2015. Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED

EP-C-12-054/0006/004

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6

NAME OF OFFEROR OR CONTRACTOR

R T I International

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>(b) When the contract is fully funded as specified in the Estimated Cost and Fixed Fee Clause (EPA-B-16-102), the Limitation of Cost clause shall become applicable.</p> <p>(c) Recapitulation of Funds See the attached Recapitulation of Funding Sheet.</p> <p>Option Period I</p> <p>(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of fixed fee. The amount allotted for costs is estimated to cover the contractor's performance through 06/06/2016.</p> <p>(b) When the contract is fully funded as specified in the Estimated Cost and Fixed Fee Clause (EPA-B-16-102), the Limitation of Cost clause shall become applicable.</p> <p>(c) Recapitulation of Funds See the attached Recapitulation of Funding Sheet.</p> <p>(End of clause)</p> <p>Contractor's Statement of Release</p> <p>In consideration of the modification(s) agreed to herein as complete equitable adjustments for the Contractor's proposal dated 09/16/2015, the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the proposal.</p> <p>FOB: Destination</p> <p>Period of Performance: 10/31/2014 to 09/27/2016</p>				

EP-C-12-054
Task Order 0006

Recapitulation of Funding to Date by Task Order Period

Base Period

<u>FUNDING ACTION</u>	<u>ESTIMATED COST</u>	<u>FIXED FEE</u>	<u>TOTAL COST PLUS FIXED FEE</u>
Initial Award	(b)(4)	(b)(4)	\$ 330,175.88
Modification 4			\$ (98,096.88)
Total Funded			\$ 232,079.00
Total Per TO			\$ 232,079.00
Balance Unfunded			\$ 0.00

Option Period I

<u>FUNDING ACTION</u>	<u>ESTIMATED COST</u>	<u>FIXED FEE</u>	<u>TOTAL COST PLUS FIXED FEE</u>
Modification 3	(b)(4)	(b)(4)	\$ 24,682.00
Modification 4			\$ 98,097.00
Total Funded			\$ 122,779.00
Total Per TO			\$ 176,759.00
Balance Unfunded			\$ 53,980.00

**PERFORMANCE WORK STATEMENT
TSAWP Multiple-Award Contracts
EP-12-C-054
TASK ORDER 0006**

A. Title: Drinking Water Mapping Application for Protecting Source Waters (DWMAPS)

B. Period of Performance: One year after date of issuance

B. Task Order COR:

Sherri Comerford
Environmental Protection Specialist
Office of Ground Water and Drinking Water
Prevention Branch
202-564-4639
Comerford.Sherri@epa.gov

Alternate Task Order COR:

Roger Howard
Environmental Protection Specialist
Office of Ground Water and Drinking Water
Prevention Branch
202-564-9907
Howard.Roger@epa.gov

I. Background

EPA, in partnership with AWWA and ASDWA, is launching a national call to states, drinking water utilities, and local communities to redouble their efforts to identify susceptible drinking water systems, revisit their source water assessments, and take steps to ensure that adequate preventative and response measures are in place.

In the June 6 Executive Order, “Report on Chemical Safety,” the agency commits to engage with and encourage State Drinking Water Administrators and drinking water utilities to revisit and update source water assessments and determine whether adequate preparedness and preventive measures are in place for systems susceptible to contamination from chemical spills or other priority concerns.

One activity key to carrying out this commitment is enhancing and developing a public version of the Drinking Water Mapping Application for Protecting Source Waters (DWMAPS), formerly known as the Drinking Water GeoPlatform Application. This effort, in conjunction with a national dialogue to identify new opportunities in source water protection, will increase public health

protection and public confidence in the drinking water supply, by providing states and utilities with the tools and support they need to identify and most effectively manage the greatest risks to drinking waters sources - both to prevent contaminants from entering a drinking water source and to adequately respond should a contamination event occur.

Purpose:

The purpose of this work assignment is to build on the existing DWMAPS to develop and maintain a comprehensive, nationwide mapping tool, with associated web services, that EPA and state agencies can use to protect drinking water sources from releases of potential sources of contamination. EPA and state agencies would use this tool to: (1) identify locations where potential sources of contamination pose risk to drinking water sources; (2) promote compliance with spill prevention and planning requirements in high-risk locations; (3) ensure that emergency response resources for accidental releases are readily available in high-risk locations; (4) provide functions that support updating of source water protection plans; and (5) promote integration of SDWA activities with other environmental programs at the EPA, state, and local levels.

This project continues work initiated under Task Order 3, Drinking Water GeoPlatform Application. It also develops a secure version of DWMAPS accessible to state and utilities via the Central Data Exchange (CDX); incorporates new functions and data layers to all three versions of DWMAPS; develops a source water protection reporting tool; supports training sessions for critical DWMAPS users; and supports the development of user guides for the three versions of DWMAPS.

II. Tasks

Task 1: Core Support and Maintenance

- 1.1 Prior to the beginning of work on this task, the Task Order Contract Officer's Representative (TOCOR) shall schedule a kick off meeting with the contractor to discuss the tasks within this task order, the goals of the task order, any questions or concerns regarding the existing QAPP, and a review of the schedule of milestones and expectations.
- 1.2 At the kick off meeting at the beginning of the tasks, the agenda shall include an overview of the existing QAPP, and address any concerns from EPA's QAO or from the contractor. Issues raised will be acknowledged by EPA's QAO, and the contractor will be allowed to incur billable costs to address the issues or EPA will dismiss the concern. If the issue needs to be addressed, an addendum to the existing QAPP will be written.
- 1.3 EPA has determined that an existing QAPP will be used for the performance of this task order. See Section III for additional information.
- 1.4 The contractor shall develop, update and/or revise, as directed via written technical direction by the TOCOR, the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies or other needs, and the classification of

sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR. Copies of the security plan shall be provided to the TOCOR, OGWDW Security Officer and the WATERS team leader as necessary. Upon direction from the TOCOR, the contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).

- 1.5 The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the DWMAPS Web site during normal business hours. Any user or the EPA TOCOR may notify the contractor that either Web site is not available.
- 1.6 The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable. Updates to the DWMAPS are needed because changes occur regularly in the ArcGIS application software, GIS platforms, server locations, Oracle database facility, and the WATERS version control structure.
- 1.7 The contractor shall be responsible for managing and maintaining necessary operations for DWMAPS.
- 1.8 The contractor shall monitor the use of DWMAPS and identify all issues with the software. The contractor shall report to EPA all issues with DWMAPS and assist EPA in prioritizing their resolution, as well as operate, maintain and provide user support as directed.
- 1.9 The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.
- 1.10 The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.
- 1.11 The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort. No information to be included at the site shall be considered sensitive information or data.
- 1.12 The contractor respond to help requests as directed by the TOCOR. EPA will set up an email address for DWMAPS help requests and will send to the contractor only those items for which the EPA DWMAPS team needs support.

Task 2: Basic Data Use

2.1 The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment. Maintaining the current datasets shall allow the DWMAPS application to be accessed for continuing projects and analyses.

2.2 The contractor shall update all major GIS layers that are included in Attachment A: Data Updates Required to Enhance the GIS Capabilities of the DWMAPS. Priority coverages and data for these updates are the SDWIS/Fed drinking water data and the layers based on this data (e.g. Source Protection Areas (SPAs); HUC12 layers used in MyWATERS Mapper, etc.). The version of SDWIS/Fed used for all updates shall be the latest complete quarter or its derivative as determined by EPA. The following datasets and data layers shall be updated.

- 2.2.1 A SDWIS geospatial dataset including all source facilities georeferenced to the most recent NHDPlus¹.
- 2.2.2 Reach code indexing for all SDWIS/Fed source facilities (surface water only).
- 2.2.3 Updating and re-calculating the source protection areas (SPAs) based on the existing and any new source facilities that are not included in the current SPA data layer (3rd Quarter 2010). The contractor shall use the NHDPlus (latest acceptable version) coverages to refine the SPAs as needed
 - 2.2.3.1 Create other source protection areas (SPAs) based on source water assessment delineations provided by states.
- 2.2.4 Updating the drinking water density maps using the HUC12 watersheds based on NHDPlus (latest accepted version), preparing them for use in various formats or applications (e.g. MyWATERS Mapper, downloadable data sets, web services, etc.) and making them available for public distribution as determined by EPA.
- 2.2.5 Update all metadata connected to the data updates in subtasks 2.2.1 through 2.2.4.
- 2.2.6 Other data sets contained in the DWMAPS to be considered for update or refresh as funding allows are the following: (version date in parentheses)
 - 2.2.6.1 NPDES (Summer 2007)
 - 2.2.6.2 CSO (August 2004)
 - 2.2.6.3 CERCLA (July 2007)
 - 2.2.6.4 RCRA (July 2007)
 - 2.2.6.5 UIC ((1990's)
 - 2.2.6.6 UST (HIFLD - HSIP Gold 2007 dataset of gas stations²)

¹ NHDPlus is an integrated suite of application-ready geospatial data sets that incorporate many of the best features of the National Hydrography Dataset (NHD), the National Elevation dataset (NED), and the Watershed Boundary Dataset (WBD). NHDPlus Version 1 (NHDPlusV1) was released in 2006. NHDPlus Version 2 (NHDPlusV2) began its public debut in June 2012.

² HIFLD – Homeland Infrastructure Foundation-Level Database (HIFLD) Working Group is a coalition of federal, state, and local government organizations, and supporting private industry partners who are involved with geospatial issues related to Homeland Defense, Homeland Security, civil support or emergency preparedness and response. The HIFLD website is found at <https://www.hifldwg.org>. HIFLD produces the Homeland Security Infrastructure Program (HSIP) dataset called the HSIP Gold dataset. The HSIP Gold 2012 dataset contains 5 DVDs: DVD1:

- 2.2.6.7 Dry Cleaners (ESRI ArcGIS 9.3 Business Analyst January 2008)
- 2.2.6.8 AFO (HSIP 2007)
- 2.2.6.9 SSA (January 2009)
- 2.2.7 Karst (1984)
- 2.2.7.1 DOD (December 2005)
- 2.2.7.2 Tribal (3rd Quarter 2006)
- 2.2.7.3 Ground Water Regions (1984)
- 2.2.7.4 Principal Aquifers (October 2003)
- 2.2.7.5 Surficial Geology (1979)
- 2.2.7.6 FEMA Q3 flood plain maps (2003?)
- 2.2.7.7 NOAA Coastal Counties (Date not noted)
- 2.2.7.8 Pipeline and Bridge/Rail Hazardous Transportation Layers
- 2.2.7.9 Other layers as identified by EPA

2.3 The contractor shall *support EPA's efforts to* collect, evaluate and develop new datasets to be used to support drinking water, source water and underground injection program analyses. The contractor shall use its expertise to develop those datasets that are required, used or needed to support analyses under the GeoPlatform, the SDWIS/Fed Data Warehouse (SFDW), SDWIS/Fed Reporting Services (SFRS), Nutrient Reduction Framework, NPDAT, MyWATERS Mapper, Water Data Project, environmental justice projects, and other agency initiatives.

Task 3: DWMAPS Enhancements and Design

Note: for new data layers referenced below, EPA will conduct upfront data discovery and data vetting.

3.1 The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports³] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.

3.2 The contractor shall design and develop new geospatial functions and queries determined by EPA that are directly related to the outlined tasks in 3.1 above. All work shall take advantage of the NHDPlus velocity and flow variables available for the catchments that are

Infrastructure Data; DVD 2: Infrastructure Data(Cont.), National Flood, Hazard Layer; DVD 3: LandScanTM, LandScan USATM; DVD 4: Navteq®, Road Networks, Points of Interest; DVD 5: Navteq®, Geocoding Locators (ArcGIS 9.3 & ArcGIS 10.0)

³ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

elevation-derived sets of polygons to represent contributing areas to stream reaches. These catchment areas should make possible more complex watershed-based analyses that the contractor shall use to recommend cross-program benefits to use within EPA and with other Federal agencies. Examples of the types of geospatial analyses and queries to be investigated are the following:

- 3.2.1 Using the TMDL layer as an active layer with queries [preparation of impaired waters and TMDL data from ATTAINS database potentially needed].
 - 3.2.1.1. The first step to this task, creating a data layer using static TMDL data from ATTAINS, was completed in the Base year. In Option Year 1, update the TMDL layer based on new ATTAINS format expected to be available in 2016; investigate building on this query and provide options to EPA; and enhance the query utilizing the new TMDL-related data connections as directed by the COR.
- 3.2.2 Determining results from queries that can be displayed on a nationwide basis by integrating new query building techniques using SPAs and generating queries and reports on the numbers, types, names and locations of contaminant sources.
- 3.2.3 Integrating layers for inundation areas, floodplains and coastal counties for use in emergency response actions using queries [Designing queries for coastal counties or “SLOSH” (sea level rise and flooding purposes) displays, and FEMA flood plain data (Q3 version)].
 - 3.2.3.1. The first step of this task, adding data layers for 100-year and 500-year floodplains, was completed in the Base Year. For Option Year 1, design queries that integrate these and other layers noted in 3.2.3.
- 3.2.4 Designing and enhancing reporting functions and printing query results directly from GIS viewers [e.g. printing and sharing of .pdf file of map results; downloading GIS files after query complete and saving project analysis].
- 3.2.5 Using other data layers for drinking water, source water and UIC for designing geospatial analytical functions or GIS representations and queries. These layers to be considered for example are: climate change; aquifer exemption; sole source aquifer; hydraulic fracturing, and geologic sequestration. ***For the base year,*** contractor shall prioritize DWMAPS interaction with Clean Water Act databases and models that support the business questions in ATTACHMENT B (e.g., ATTAINS, ICIS, and NSD2). The contractor shall coordinate with EPA’s Water Quality Portal, which includes data from EPA STORage and RETrieval Data Warehouse (STORET) as well as USGS National Water Information System (NWIS) and USDA Sustaining the Earth’s Watersheds: Agricultural Research Database (STEWARDS).

3.2.6 The contractor shall develop web services that will allow users of all versions of DWMAPS (EPA, states, utilities, other federal agencies, and public) to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications. Limitations to sensitive data access for web services for each user group will be equal to limitations for the respective full GIS programs designed for those user groups. (See Task 4).

3.2.7. This item was completed during Base Year.

Add to Option Period 1:

3.2.8. The contractor shall maintain database links between FRS database and SFDW database to enable automatic quarterly updates.

3.2.9 The contractor shall investigate available real-time time-of-travel and fate-and-transport models that may be integrated into DWMAPS, provide options to the EPA, and integrate them into DWMAPS as directed by the TOCOR.

Task 4: Develop Access for States, Utilities, other federal agencies, and the public.

4.1 The contractor shall develop secure access to DWMAPS for states, utilities, and other federal agencies by linking to the Central Data Exchange (CDX) or other appropriate platform as determined by EPA's National Computer Center. By logging on securely to DWMAPS, states and utilities will be able to see their SDWIS Fed location data in DWMAPS (i.e. they will not need to click on the map or enter a latitude/longitude) and have their SDWIS Fed location used automatically by DWMAPS upstream potential risk identification functions. Additionally, states and utilities will be able to send a request from DWMAPS to the Primacy Agency data steward to correct location data in the primacy agency data system (with corrected data sent from the primacy agency to SDWIS Fed during the subsequent quarterly reporting). Also, the Contractor shall provide capabilities to incorporate state specific datasets (e.g. SPAs) – some state specific datasets may be sensitive and therefore require controls so that only authorized users in the state can access the data. Employees from federal agencies with secure login rights will be able to access nationwide data.

4.2 The Contractor shall develop access to DWMAPS for the public. This version will not include sensitive data, including drinking water intake locations or source water protection areas, or other sensitive data as defined by EPA Office of Water sensitive information policy. This subtask was partially completed during the Base Year, but will continue into Option Period 1.

4.3 The contractor shall maintain, and troubleshoot as needed, secure access to DWMAPS for states, utilities, and other federal agencies via CDX or other appropriate platform as determined by EPA's National Computer Center.

Task 5: Develop DWMAPS Source Water Protection Report-Generating

Tool

Many informational and technical barriers prevent utilities, state drinking water professionals, and other stakeholders from updating Source Water Assessments. The contractor shall develop a DWMAPS report writer (hereafter, the “Writer”), designed to make it easier to document potential sources of contamination and water quality information that may affect source waters. In addition to synthesizing and translating data from national databases, the Writer will allow users to “write in” information from local records, improving the report’s relevance to communities and practitioners in the field. [See ATTACHMENT C – Sample DWMAPS Source Water Protection Report]

This Writer will offer templates for writing source water assessment updates specific to the priorities of utilities, states and public users. The Writer will use DWMAPS metadata to produce charts and tables, and provide users with editing options and text templates to customize each report and supplement data with the author’s description. The Writer will also allow users to extract data into an Excel spreadsheet to import into their own programs. User identity will determine report interface. The Writer interface will have up to three (3) versions, each tailored to the needs of specific user groups. The interface will vary depending on whether users access DWMAPS via

- 5.1 State CDX or other secure log-in
 - 5.1.1. In the base year, the contractor began working with EPA to develop a revised mock-up based on work done under Tasks 3 and 4.
 - 5.1.2. In Option Period 1, complete this tool and connect to the secure version of DWMAPS.
- 5.2 Utility CDX or other secure log-in
 - 5.2.1. In the base year, the contractor began working with EPA to develop a revised mock-up based on work done under Tasks 3 and 4.
 - 5.2.2. In Option Period 1, complete this tool and connect to the secure version of DWMAPS
- 5.3 Public DWMAPS
 - 5.3.1. In the base year, the contractor began working with EPA to develop a revised mock-up based on work done under Tasks 3 and 4.
 - 5.3.2. In Option Period 1, complete this tool and connect to the public version of DWMAPS

State and utility versions are the priorities for the base year. Differences between Writer versions will be most visible in the level of informational detail; technical/non-technical language; and data options. For example, the State Writer will incorporate more regulatory language and include analyses cross-walking Clean Water Act and Safe Drinking Water Act areas of concern.

Task 6: Technical Support

- 6.1 The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.
- 6.2 The contractor shall, as required at times, evaluate and provide technical support for specific GIS projects from OGWDW or outside the office, such as recommendations on project objectives, data use and sources, and project initiation. The contractor support for projects to other EPA customers outside OGWDW shall be assigned dependent on the level of effort in the contract and

as directed via written technical direction by the TOCOR.

6.3 The contractor shall integrate data for collaborative projects across EPA offices. The contractor shall investigate and design new queries for the integration of data (e.g. OUST, OSWER, OWM) and other non- EPA agency data (e.g. Forest Service) into geospatial analytical capabilities to be used in the GeoPlatform, NextGen developments, SFDW or in ArcGIS desktop applications. The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows. The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.

6.4 The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.

6.5 The contractor shall provide technical support to users of DWMAPS query function, web services, and source water protection reporting tool.

6.5.1 The contractor shall provide support to users who email EPA with questions about use of DWMAPS, at the direction of the TOCOR. EPA will establish an agency email box for user support and field questions. When EPA needs assistance answering questions, the contractor shall assist the agency in formulating a response.

6.5.2 The contractor shall provide online user guides to document the use of the federal, public and state/CDX versions of DWMAPS, web services, and source water assessment report-generating tool, updating the guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.

Task 7: Support Meetings and Training

7.1 The contractor shall, as directed via written technical direction by the TOCOR, prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing. The contractor shall also prepare briefing materials, information handouts, and presentations as needed for EPA on site contract monitoring meetings at the contractor's place of business and at EPA HQ.

7.2 The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.

- 7.3 The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.
- 7.4 The contractor shall provide technical support for and/or conduct training sessions for DWMAPS users that describe the data in the application, the use of queries and web services, the interpretation of results from using the DWMAPS, and use of the source water assessment generating tool described in Task 5, as the direction of the TOCOR. The trainings incorporating the report generating tool will be conducted at a later phase of the work assignment. EPA will develop agendas, materials, and segments of the training sessions that put DWMAPS tools into the context of Source Water Protection information and other tools, including the Source Water Collaborative's "How-to-Collaborate Toolkit," and develop recordings/webcasts for sustainable transfer of information. The contractor shall provide technical expertise and collaborate with EPA in these preparatory activities. Contractor participation will be via webinar, unless directed by the TOCOR (See Section G: Anticipated Travel).
- 7.4.1 EPA, State and utility users of the public version, prior to its release to the public (provide technical support).
 - 7.4.2 Watershed groups and source water collaborative member users of the public version (provide technical support).
 - 7.4.3 State and utility users of the CDX version (conduct training).
 - 7.4.4 State and utility users of the CDX version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).
 - 7.4.5 Watershed groups and source water collaborative users of the public version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).
- 7.5 The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.
- 7.6 The contractor shall develop training materials to parallel the training above in 7.4 as directed via written technical direction by the TOCOR.
- 7.7 The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.

III. Quality Assurance (QA)

- A. EPA has determined that an existing QAPP will be used for the performance of this work. The existing QAPP is included in this PWS as an attachment. The contractor shall adhere to the existing QAPP in performing the scope of requested services in this task order.

The contractor shall review the existing QAPP, and verify that it is still appropriate for use. If revisions are needed, the contractor shall include these in the Cost and Technical Proposals. The contractor shall notify the EPA TOCOR at any time during the task order if changes to the QAPP are warranted. If the contractor determines that revisions to the QAPP are warranted, work on this task order cannot proceed until the contractor receives notification of QAPP approval from the POCOR via e-mail.

- B. The contractor shall comply with the contract-level QA guidance in Section 2.6 Quality Assurance (QA) Requirements. The contractor shall comply with the QA guidance for GIS data (QA/G-5G) at: <http://www.epa.gov/QUALITY/qs-docs/g5g-final.pdf>.
- C. Specific QA and data standards sections applicable to tasks 2, 3, 4, 5, and 6 in this task order.
- D. Progress on reviewing proposed existing data and new data sets shall be covered in the monthly progress reports. The monthly progress report shall indicate in a separate QA section, whether significant QA issues have been identified and how the contractor is resolving them.
- E. The contractor shall provide separate spending breakdowns in the monthly progress reports for work pertaining to 1). Operation and Maintenance; 2). DWMAPS enhancements; and 3) Data updates; 4) Technical Support; and 5) Training.
- F. This task order does not require a separate QAPP per Section 2.6.3 QUALITY ASSURANCE PROJECT PLAN (QAPP).
- G. In addition, the workplan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at <http://www.epa.gov/accessibility/>. Please see the Voluntary Product Accessibility Template (VPAT) at <http://www.itic.org/dotAsset/5644ecd2-5024-417f-bc23-a52650f47ef8.doc>.

IV. Schedule of Benchmarks & Deliverables

Travel in this task order shall be limited to a kickoff meeting and occasional onsite meetings with EPA in Washington, DC per approval by the TOCOR. The travel for any conference or training participation shall be approved by the TOCOR before the travel is scheduled.

When the Task Order reaches 30 calendar days prior to the end of the Period of Performance in a given period, the contractor shall make a determination that the deliverables, milestones, benchmarks, and any outstanding technical direction from the TOCOR, will be satisfactorily completed in the form requested in the PWS by the end of the Period of Performance and for the remaining funding that is available.

If within 30 days prior to the end of the period of performance in a given period, the contractor

determines one or more of the above-referenced items will not be able to be completed in the requested form within the period of performance and with the available funding, the contractor shall notify the TOCOR and the CO immediately. Within 5 business days of said notification, the TOCOR in coordination with the CO will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR all interim draft deliverables, interim work products, and any working files in an electronic format which is supported by EPA, for eventual continuation of the project after the end date of the Task Order.

See attached Schedule of Benchmarks & Deliverables below:

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Base Year: September 2014-September 2015		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.
1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable
1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies or other needs, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	This activity is expected to be completed within the three months of the contract due to the database's name change and an expected server migration within EPA, within 10 business days after receipt of written technical direction of the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	Within 10 business days after receipt of written technical direction of the TOCOR
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As needed and directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports	As needed and directed by the TOCOR.

	and operating the DWMAPS application or components of the system.	
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	This activity may be needed during the second through fourth quarters of the first year of the TO, as directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As needed and directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment	Ongoing.
2	The contractor shall update GIS layers	This activity is expected to begin during the first quarter of the first year of the TO, as directed by the TOCOR.
2	The contractor shall collect, evaluate and develop new datasets.	This activity is expected to begin during the first quarter of the first year of the TO, as directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁴] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	This activity is expected to begin during the first quarter of the first year of the TO, as directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries and continue updating DWMAPS v. 1.3 per technical direction submitted under Task Order 3	This activity is expected to begin during the first quarter of the first year of the TO and continue as needed throughout the duration of the task order as EPA identifies new data layers needed within the platform, as directed by the TOCOR.
3	The contractor shall develop web services that will allow users of all versions of DWMAPS (EPA, states, utilities, other federal agencies, and public) to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications. Limitations to sensitive data access for web services for each user group will be equal to limitations for the respective full GIS programs designed	This activity is expected to begin during the first quarter of the first year of the TO, and continue as needed through the duration of the year, as EPA identifies new query functions needed based on user feedback. Web service development is expected within 15 business days

⁴ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

	for those user groups. (See Task 4).	after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
4	Develop Secure Access for States, Utilities, other Federal Agencies, and the Public.	Developing access for states and utilities is expected to continue into Option Period 1. Deliverables are expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX or Other Secure Login	This activity is expected to continue into Option Year 1 with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX or Other Secure Login	This activity is expected to continue into Option Year 1 with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	This activity is expected to continue into Option Year 1 with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NP DAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As needed and as directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As needed and as directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As needed and as directed by the TOCOR
6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	This activity is expected to begin within the first quarter of the first year of the TO, with deliverable expected within 15 business days

		after receipt of written technical direction from TOCOR.
6	The contractor shall provide online user guides to document the use of the federal, public and state/CDX versions of DWMAPS, web services, and source water assessment report-generating tool, updating the guides as needed as new versions of DWMAPS are deployed, at the direction of the TOCOR.	This activity is expected to begin within the first quarter of the first year of the TO for the federal and state/CDX versions and web services; the second and third quarters for the public version and report-generating tool, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	This activity is expected to continue throughout the duration of the TO, with deliverables expected within 10 business days after receipt of written technical direction from TOCOR.
7	The contractor shall provide technical support for and/or conduct training sessions for DWMAPS users that describe the data in the application, the use of queries and web services, the interpretation of results from using the DWMAPS, and use of the source water assessment generating tool described in Task 5, as the direction of the TOCOR.	This activity is expected to begin within the second and third quarters of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	EPA, State and utility users of the public version, prior to its release to the public (provide technical support).	This activity is expected to take place during the second quarter of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	Watershed groups and source water collaborative member users of the public version (provide technical support).	This activity is expected to begin within the second and third quarters of the first year of the TO, with deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	State and utility users of the CDX version (conduct training).	This activity is expected to begin during the second quarter of the first year of the TO, with

		deliverable expected within 10 business days after receipt of written technical direction from TOCOR.
7	State and utility users of the CDX version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).	This activity is expected to begin within the third quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	Watershed groups and source water collaborative users of the CDX version: Using the source water assessment report generating tool (provide technical support or conduct training at the direction of the TOCOR).	This activity is expected to begin within the third quarter of the first year of the TO, with deliverable expected within 15 business days after receipt of written technical direction from TOCOR.
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	Upon delivery of the EPA, State/CDX and public versions of DWMAPS, the web service, and the reporting generating tool, as directed by the TOCOR.
7	The contractor shall develop training materials to parallel the training above in 7.4 as directed via written technical direction by the TOCOR.	This activity is expected to begin within the second and third quarters of the first year of the TO, with deliverables expected within 15 business days after receipt of written technical direction from TOCOR.

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Option Year I: September 2015-September 2016		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.
1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable
1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new	As directed by the TOCOR.

	sensitive drinking water security plans or policies, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	As directed by the TOCOR.
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.	As directed by the TOCOR.
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	As directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment	As directed by the TOCOR.
2	The contractor shall update GIS layers	As directed by the TOCOR.
2	The contractor shall collect, evaluate and develop new datasets.	As directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁵] and Data Warehouse	As directed by the TOCOR.

⁵ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the

	(SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	
3	The contractor shall design and develop new geospatial functions and queries	This activity is expected to begin during the first quarter of the first year of the TO and continue as needed throughout the duration of the task order as EPA identifies new data layers needed within the platform, as directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	15 business days after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	10 business days after receipt of written technical direction from TOCOR
4	Develop Secure Access for States and Utilities	Developing access for states and utilities is expected to begin within the third quarter of the first year of the TO and continue into Option Period 1. Deliverables are expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	This activity is expected to begin during the fourth quarter of the first year of the TO, and continue into Option Year 1. Deliverables are expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	This activity is expected to begin during the fourth quarter of the first year of the TO, and continue into Option Year 1. Deliverables are expected within 15 business days after receipt of written technical direction from TOCOR.
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	This activity is expected to begin during the fourth quarter of the first year of the TO, and continue into Option Year 1. Deliverables are expected within 15 business days after receipt of written technical direction from TOCOR.
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS,	As directed by the TOCOR

	MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As directed by the TOCOR
6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	As directed by the TOCOR
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	As directed by the TOCOR
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	As directed by the TOCOR
6	The contractor shall provide technical support to users of DWMAPS query function, web services, and source water protection reporting tool.	This activity is expected to begin during the first quarter of Option Period 1 and continue throughout the duration of the Task Order.
6	The contractor update online user guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.	As directed by the TOCOR
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	As directed by the TOCOR
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	As directed by the TOCOR
7	The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR.	As directed by the TOCOR

SCHEDULE OF BENCHMARKS & DELIVERABLES		
Option Year II: September 2016-September 2017		
SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.
1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable
1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	As directed by the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	As directed by the TOCOR.
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports	As directed by the TOCOR.

	and operating the DWMAPS application or components of the system.	
1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	As directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment	As directed by the TOCOR.
2	The contractor shall update GIS layers	As directed by the TOCOR.
2	The contractor shall collect, evaluate and develop new datasets.	As directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁶] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	As directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries	As directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	15 business days after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	10 business days after receipt of written technical direction from TOCOR
4	Develop Secure Access for States and Utilities	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	15 business days after receipt of written technical direction from TOCOR

⁶ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	15 business days after receipt of written technical direction from TOCOR
6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As directed by the TOCOR
6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	As directed by the TOCOR
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	As directed by the TOCOR
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	As directed by the TOCOR
6	The contractor update online user guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.	As directed by the TOCOR
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	As directed by the TOCOR
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	As directed by the TOCOR

SCHEDULE OF BENCHMARKS & DELIVERABLES
Option Year III: September 2017-March 2018

SCHEDULE		
1	Kickoff Meeting	Within 10 business days of Task Order Award.
1	The TOCOR's Quality Assurance Officer (QAO) will certify that the existing QAPP will cover the work. Otherwise, the TOCOR will request the Contractor to initiate work on an addendum to the QAPP.	10 business days after receipt of written technical direction from TOCOR. It is inferred that the existing QAPP is sufficient for the proposed work. If it is determined that it is not, then an addendum will be written.
1	Draft QAPP for EPA review	10 business days after receipt of written technical direction from TOCOR, if applicable
1	Final QAPP	10 business days after receipt of written technical direction from TOCOR, if necessary.
1	Contractor shall update as needed the security plan as it applies to the OW/OGWDW Security Policy (April 2005) for the use and access of sensitive drinking water data. NOTE: Some datasets and functions will only be available to the DWMAPS secure group.	If any changes are needed to security plan, the contractor shall provide to EPA the addendum to the QAPP within 10 days after receipt of written technical direction from the TOCOR.
1	The contractor shall develop, update and/or revise the contractor and EPA/RTP security plan based on any new sensitive drinking water security plans or policies, and the classification of sensitive data to conform to the Office of Water (OW), Watershed Assessment's Tracking and Environmental Results (WATERS) database environment, EPA Envirofacts, EPA Office of Ground Water and Drinking Water (OGWDW), and Office of Environmental Information (OEI) geospatial data policy as provided by the TOCOR.	As directed by the TOCOR.
1	The contractor shall coordinate with entities in OEI and/or the Office of Water (OW) to consider an enhanced approach to handle the needed "security" for DWMAPS' use of EPA's Central Data Exchange (CDX).	As directed by the TOCOR.
1	The contractor shall monitor the URL of DWMAPS on the NCC/RTP Web site and notify the NCC staff and the TOCOR if the DWMAPS site is inaccessible by users. The contractor shall also monitor and maintain the Web access for users of the contractor DWMAPS Web site during normal business hours.	Ongoing.
1	The contractor shall coordinate with EPA NCC/RTP support staff in maintaining and updating the DWMAPS, and its use of the reach address database (RAD) as applicable.	As directed by the TOCOR.
1	Manage and maintain necessary operations for DWMAPS.	Ongoing.
1	The contractor shall provide technical assistance via telephone or email to EPA. The contractor shall respond to questions, and as necessary provide a report describing any system problems and/or issues.	As directed by the TOCOR.
1	The contractor shall provide trouble-shooting services to EPA and the user community related to running reports and operating the DWMAPS application or components of the system.	As directed by the TOCOR.

1	The contractor shall continue to update and augment information including presentations and conference papers, and display general information pertaining to the DWMAPS project effort.	As directed by the TOCOR.
1	The contractor shall respond to help requests as directed by the TOCOR.	As directed by the TOCOR.
2	The contractor shall support existing data sets in DWMAPS, and monitor the application to assure that the data is used efficiently in the RTP production environment	As directed by the TOCOR.
2	The contractor shall update GIS layers	As directed by the TOCOR.
2	The contractor shall collect, evaluate and develop new datasets.	As directed by the TOCOR.
3	The contractor shall outline technical options to incorporate GIS functions and data used in the DWMAPS in the EPA GeoPlatform to the SDWIS/FED project including incorporating DWMAPS functions and queries into the design of the SDWIS/Fed Standard Reporting Services [SFRS; APEX reports ⁷] and Data Warehouse (SFDW). The contractor shall be required to analyze the SFDW and SFRS and recommend options on the best methods to embed or integrate GIS functionality into or with the SFDW and SFRS. The DWMAPS tool shall be designed as an integral part of the GIS capabilities for using SDWIS data from the SFDW and SFRS, and displaying data reports and physical maps (map views) directly from the APEX reports using the GeoPlatform server environment.	As directed by the TOCOR.
3	The contractor shall design and develop new geospatial functions and queries	As directed by the TOCOR.
3	The contractor shall develop a web service that will allow users to download the GIS and data layers used in the DWMAPS query functions from the Agency GeoPlatform to other internal and external applications.	15 business days after receipt of written technical direction from TOCOR
3	Create database link between FRS database and SFDW database to enable automatic quarterly updates.	10 business days after receipt of written technical direction from TOCOR
4	Develop Secure Access for States and Utilities	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – State CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Utility CDX Login	15 business days after receipt of written technical direction from TOCOR
5	Develop DWMAPS Source Water Protection Report-Generating Tool – Public DWMAPS	15 business days after receipt of written technical direction from TOCOR

⁷ Oracle Application Express (Oracle APEX) is a declarative, rapid web application development tool for the Oracle database that is being used by OGWDW to design and generate reporting services for the SDWIS/FED Data Warehouse.

6	The contractor shall incorporate the selected functions and queries designed in Task 3 above into DWMAPS, MyWATERS Mapper or NPDAT or other tools developed under this task order or as directed via written technical direction by the TOCOR.	As directed by the TOCOR
6	Evaluate and provide technical support for specific GIS projects from OGWDW or outside the office by providing recommendations on project objectives, data use and sources, and project initiation.	As directed by the TOCOR
6	The contractor shall integrate data for collaborative projects across EPA offices.	As directed by the TOCOR
6	The contractor shall also provide technical support in the use of geospatial analysis of data from UIC, RCRA, Superfund, ICIS-NPDES, CAFO/AFO, CSO, TRI, TMDL (assessed and restored waters), and OUST data to determine risks to drinking water within source water areas as the LOE allows.	As directed by the TOCOR
6	The contractor shall design queries and geospatial analysis to highlight these risk factors and to target areas for protection of drinking water systems and facilities.	As directed by the TOCOR
6	The contractor shall deploy new versions of DWMAPS to the NCC/RTP production server, and work with OEI and other parties to enable the security of the drinking water data and GIS data layers.	As directed by the TOCOR
6	The contractor update online user guides as needed with the deployment of new versions of DWMAPS, at the direction of the TOCOR.	As directed by the TOCOR
7	The contractor shall prepare for and attend a quarterly, 1 day progress and strategy meeting associated with the DWMAPS project tasks. The meeting shall be held at EPA Headquarters (HQ) offices in Washington DC. Other meetings shall be held via web/phone conferencing.	As directed by the TOCOR
7	The contractor shall work with and engage in communications with the Prevention Branch and Infrastructure Branch managers and staff, Esri representatives, RTP/NCC, OEI, the Office of Water Program Management Office (OW/PMO), and others as needed to meet the objectives as outlined in this task order. Any and all technical direction shall be given by the EPA TOCOR or alternate as required or as requested by the contractor.	As directed by the TOCOR
7	The contractor shall conduct training by webinar for EPA users two times per year that describes the data in the application, the use of queries and web services, and the interpretation of results from using DWMAPS.	As directed by the TOCOR
7	The contractor shall conduct regular demonstrations (by webinar) of the work completed and the query functionality added to the DWMAPS as tasks are completed.	As directed by the TOCOR

When the Task Order reaches 30 calendar days prior to the end of the Period of Performance, the contractor shall make a determination that the deliverables, milestones, benchmarks, and any outstanding technical direction from the TOCOR, will be satisfactorily completed in the form requested in the PWS by the end of the Period of Performance and for the remaining funding that is

available.

If the contractor determines one or more of the above-referenced items will not be able to be completed in the requested form within the period of performance and with the available funding, the contractor shall notify the TOCOR and the CO immediately. Within 5 business days of said notification, the TOCOR in coordination with the CO will provide technical direction concerning use of the remaining funding to prepare and furnish to the TOCOR all interim draft deliverables, interim work products, and any working files in an electronic format which is supported by EPA, for eventual continuation of the project after the end date of the Task Order.

VII. Deliverables

All deliverables (draft and final) to EPA shall be furnished in an electronic format that EPA can support (see TSAWP Contract PWS Section 4.0 Deliverables). All final deliverables shall be prepared according to EPA publication guidelines and shall be compliant with Section 508 of the Americans with Disabilities Act.

All draft and final deliverables from the contractor under this PWS are potentially subject to Freedom of Information Act requests.

All submittals to EPA shall be formatted as described below:

- Any written reports, summaries or analysis documents shall be in electronic Microsoft Word®.
- Any and all spreadsheets, raw data, coding and modeling work (including all model runs with essential data to replicate model runs) shall be in electronic Microsoft Excel® or XML formats.

Appropriate electronic format that is supported by EPA and printing of all GIS data layers, maps, photos, bench sheets and other written material not easily printed or saved in the above formats will be discussed and a format agreed upon with the EPA TOPO prior to submittal by the contractor.

G. Anticipated Travel

All travel under this Task Order shall be in compliance with contract requirements and only according to specific written Technical Direction from the TOPO. (See contract clause H-17). The following travel is anticipated under the following Tasks:

Task 7.1 – Quarterly travel to EPA Headquarters in Washington, DC, for one-day in-person meetings are anticipated. The vast majority of the interactions being conducted through conference calls. The number of contractor personnel required for each trip will be provided to the contractor through written technical direction from the TOPO – in general, one (1) or (2) contractor personnel will be required.

Task 7.4 – Provision of technical support for training sessions for DWMAPS users shall be achieved via webinar wherever possible. At the direction of the TOCOR, one contractor personnel may be anticipated to travel to conduct in-person training sessions with state and utility users of the CDX version of DWMAPS and watershed group and source water collaborative users of the public version (7.4.3, 7.4.4 and 7.4.5), contractor may be expected to travel for one day to conduct in-person training sessions, at locations to be determined as directed by the TOCOR.

Task 7.7. The contractor shall present one (1) oral presentation at a conference as approved by the TOCOR. One (1) contractor personnel would be required to travel for one (1) day of a conference, at a location to be determined as directed by the TOCOR.

H. Contractor Identification

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the EPA TOPO.

I. Meeting guidelines and limitations:

Travel is not anticipated to be routine under this contract. EPA expects that the majority of the dollars to go toward the development of the DWMAPS GIS platform. EPA projects that none of the individual meetings identified in these tasks will exceed a total cost of \$2,000 with total travel not to exceed \$10,000 in any performance period. The contractor shall immediately notify the EPA Contracting Officer, PO and TOPO of any anticipated individual event which meets the definition of a "conference," with total net expenditures anticipated to be greater than \$20,000.

A **"conference" or "conference-related activity"** is an internal or external meeting, retreat, seminar, symposium or event that involves expenses from the following categories:

attendee travel paid for by the EPA; training activities; or EPA hosted or co-hosted, sponsored or co-sponsored events incurring speaker fees, food and refreshment expenses, non-federal facility expenses, audio visual expenses and/or contract related conference expenses. **"Conference expenses"** are all direct and indirect conference costs paid by the government, whether paid directly by agencies or reimbursed by agencies to travelers or others associated with the conference, but do not include funds paid under federal grants to grantees. Conference expenses include any associated authorized travel and per diem expenses, hire of rooms for official business, audiovisual use, light refreshments, registration fees, ground transportation, and other expenses as defined by the Federal Travel Regulation. All outlays for conference preparation and planning should be included. The FTR provides some examples of direct and indirect conference costs included within conference expenses. After notifying EPA of the potential to reach this threshold, the contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

K. VALIDATION OF SECTION 508 COMPLIANCE OF TASK ORDER DELIVERABLES

The Contractor shall support the TOPO in conducting a "Final Deliverable Validation" to ensure compliance with Section 508 and the Federal Acquisition Regulations (FAR) related to "electronic and information technology (EIT) deliverables". The Contractor shall furnish certification, in writing, to the TOPO that the Contractor has complied with EPAAR Clause 1552.211-79 "Compliance with EPA Policies for Information Resources Management", including the requirement that all electronic and information technology (EIT) deliverables be Section 508 compliant in accordance with the policies referenced at

<http://www.epa.gov/accessibility/> .

V. Attachments

- A. Data Updates Required to Enhance the GIS Capabilities of the DWMAPS
- B. DWMAPS Clean Water Act Business Questions
- C. Sample DWMAPS Source Water Protection Report
- D. Quality Assurance Project Plan (QAPP) Task Order 020 Drinking Water Mapping Application (DWMA) Support Prepared by Environmental Health and Economics Division RTI International, Research Triangle Park, NC 27709 EPA Contract Number EP-C-08-003, 31 March 2010 (used in 2011 and 2012 task orders).